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**THE OTTO HIGEL CO.**  
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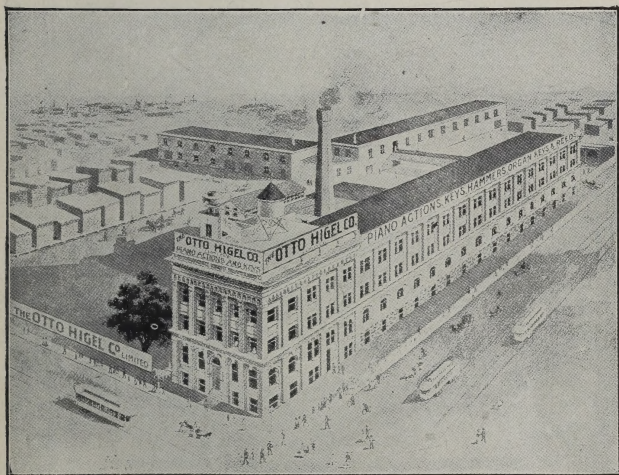


15  
ILLUSTRATED AND DESCRIPTIVE

# CATALOGUE

OF GRAND AND UPRIGHT PIANO ACTIONS, KEYS  
AND HAMMERS

ORGAN KEYS, REEDS AND REED BOARDS,  
PIANO AND ORGAN TOOLS AND SUPPLIES



## The Otto Higel Co., Limited

OFFICE AND FACTORY

Corner of King and Bathurst Sts.,  
TORONTO, CAN.

1906

Telephone  
PARK 194

Cable Address  
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Officers of the OTTO HIGEL CO., Limited





## NOTICE

We respectfully ask that you kindly acknowledge receipt of this catalogue that we may have a complete record of the location of every copy, in case additions or changes are made.

THE OTTO HIGEL CO.,  
Limited.

## TO OUR PATRONS

We take pleasure in presenting you this catalogue and desire to say a few words on the subject of the manufacture of Piano Actions, the methods we have pursued and what materials are used.

Our Factory, which is located on the corner of two principal thoroughfares, has light on all four sides. This is essential to do fine work. The equipment consists of the very latest up-to-date machinery. Most of the automatic machinery has been invented and made by ourselves, as we have a first-class machine shop in connection with our Action Plant. This is of the very greatest importance, as it enables us to keep all our tools and machinery in constant perfect condition. As a matter of vital necessity and self-preservation, unerring accuracy is absolutely essential to produce perfect uniformity in such delicate parts.

Owing to the progressive development and close application our Actions have attained the acknowledged superiority, and the merits of our goods is our best advertisement.

All materials we buy are of the very best money can secure, as we believe only the best is good.

Our workmen are efficient, skilled mechanics; none other can hold positions in our factory, and are under the constant personal supervision of experienced foremen. It is, therefore, natural that our Action has attained such a high position. Anyone buying a piano should see that it contains an Otto Higel Action, as our guarantee goes with every Action we make.

We can procure everything at short notice, and anything not mentioned herein can be furnished on application. Order all goods by catalogue numbers and names to prevent errors and delays.



### NOTICE

Prices are not guaranteed and are subject to change without notice. All goods are sold F.O.B. Toronto, unless otherwise agreed by special arrangement.

All goods are shipped at buyer's risk. All claims for shortage must be made within ten days after receipt of goods.

All contracts and promises are contingent upon strikes, accidents or other causes beyond our control.

## TERMS

All orders from parties unknown to us must be accompanied with cash. If goods are to be shipped C.O.D. a sufficient deposit to cover express charges both ways must be enclosed with order.

Accounts only opened with parties of high commercial rating or upon approved trade references. On purchases amounting to less than \$1.00 the cash must be sent with the order.

All cheques, express or postal orders should be made payable to the Company and not to individuals.

All remittances are to be made at par in Toronto. On C.O.D. deliveries, collection charges are added.

If goods are to be mailed, include a sufficient amount for postage or registration. Any surplus will be returned with the bill. To insure safe delivery by mail, packages should be registered and we will do so unless requested to the contrary.

To prevent delay, it is **very important** that the full name and address is given on all correspondence. Always give definite shipping instructions with every order, stating plainly if by mail, Canadian or Dominion express, freight or otherwise. Packing cases or boxing will be charged at cost.

All accounts must be settled on the first of the month following delivery of goods. Accounts overdue are subject to sight draft. Address all communications to the Company.



We have adopted the above Trade Mark  
which will be put on all Actions  
manufactured by us.

MADE IN CANADA







**UPRIGHT  
PIANO ACTIONS  
PARTS  
FELTS, CLOTHS  
AND  
HARDWARE**

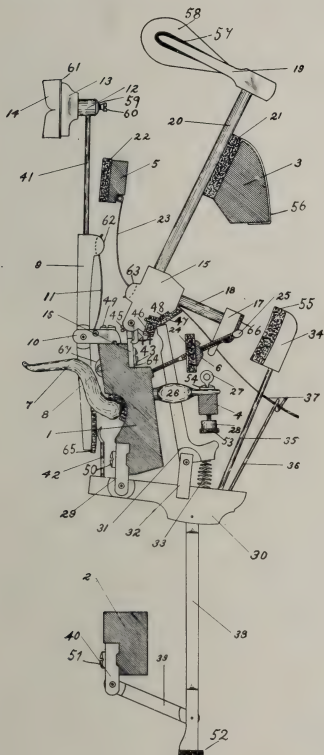
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**ALL PRICES SUBJECT TO CHANGE  
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## UPRIGHT ABSTRACT PIANO ACTION



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## HOW TO ORDER UPRIGHT PIANO ACTIONS

1. Send wooden rod showing the centre of every note and the centre of each bracket, also the centre of the damper rod crank. If double damper rods are required. Show the centre of treble crank.

2. Give distance from bottom of key frame to the striking line of the hammers.

3. Give distance from the striking line of the hammers to centre of bolt hole for top of the bracket.

4. Give length of bracket bottom bolt projecting over key bottom.

5. State if varnished or metal covered hammer rail is desired.

6. Give distance hammer rail projects past the end bracket.

7. Give the style of action by catalogue number and state if brass or wooden flanges are to be used on hammer butts.

8. If bass damper wedges are required give number of single and double strings in bass section, also the size of wedges, viz. :  $1\frac{3}{8}$ " or  $1\frac{3}{4}$ ", also style of bass plate by catalogue number.

9. State if all maple or part cedar shanks are wanted.

10. If sustaining attachment is required give distance from centre of crank to first note.

11. If a dowell action is required give exact length of dowell over all.

12. The following parts are supplied with all actions and are included in the price.

95 Maple Hammer Shanks.

1 set Treble Damper Heads.

1 set Damper Blocks.

1 set Damper Plates.

1 set Capstan Screws with Abstract Action.

1 set Dowells with Dowell Action.

### REPAIRING OF ACTIONS

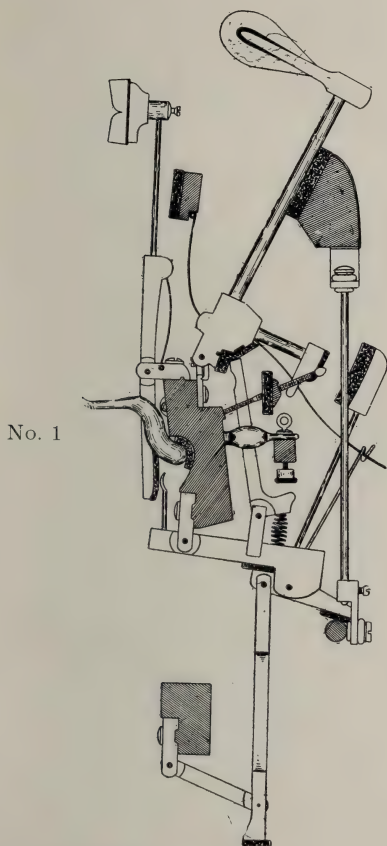
We repair old or damaged actions, or we will make any parts to order.

Always send us samples.

We cannot give estimates on Action repairs, as it is very difficult to describe what may be necessary to put the Action in good order.

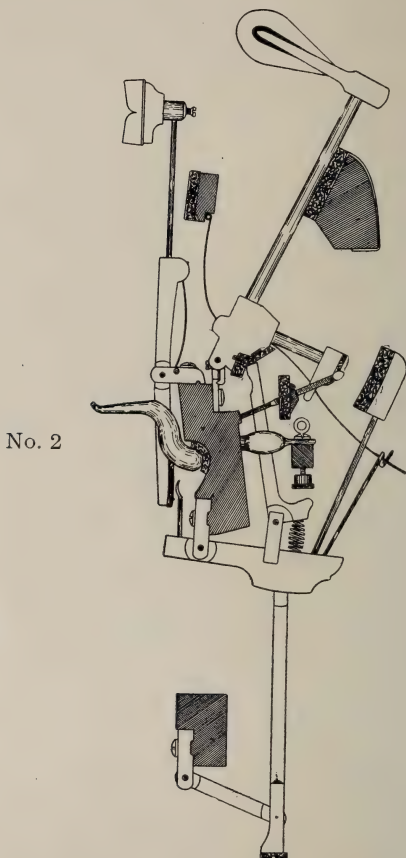
In ordering state whether old parts should be repaired if possible.

If a first-class job is wanted we advise that entire new parts are used. We will try to use the brackets and frame if possible.



Style 1.—**Abstract Piano Action**, with Lost Motion Attachment. Brass or Wood Flanges as required. With or without Stop Rail. Price on application.

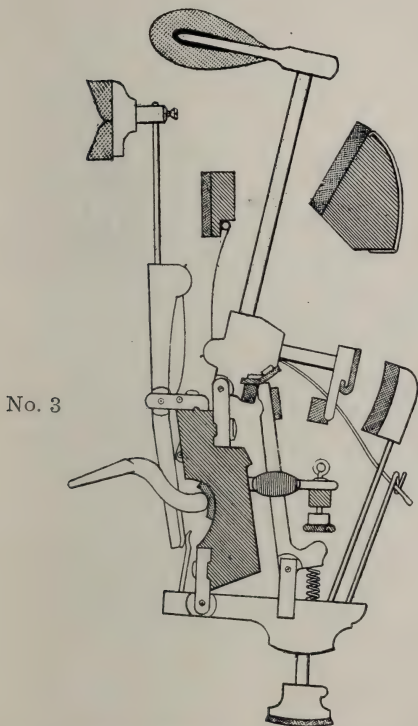
MADE IN CANADA



Style 2—**Abstract Piano Action**, Brass or Wood Flanges as required, with or without Stop Rail. Price on application.

MADE IN CANADA

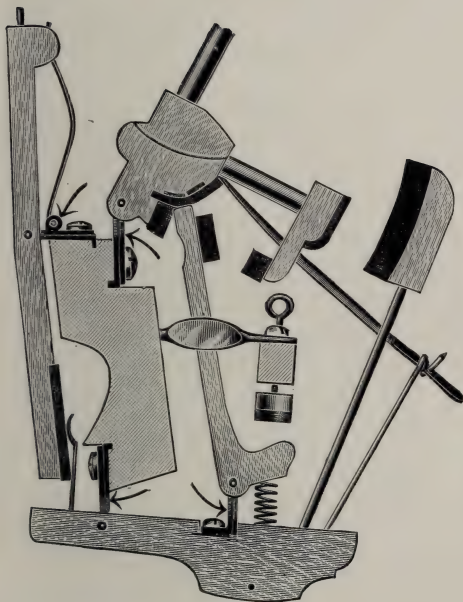




Style 3—**Dowell Piano Action**, with extension Wipp Brass or Wood Flanges as required. With or without Stop Rail. Price on application.

MADE IN CANADA



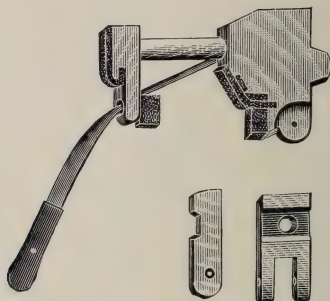


No. 5

The above illustration shows the Upright Piano Action fitted with Billings Patent Spring Metal Flanges. Price on application.

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## HAMMER BUTTS AND FLANGES



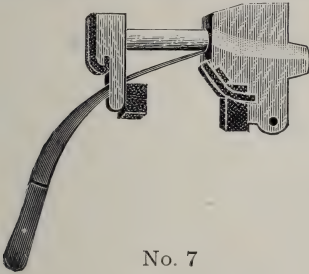
No. 6

A—Pin Butts and Flanges complete, per set of 90....	\$5.00
A—Pin Butts and Flanges complete, doz.....	.85
A—Pin Butts and Flanges complete, each.....	.10
B—Pin Butts without Flanges, per set of 90.....	3.50
B—Pin Butts without Flanges, per dozen.....	.65
B—Pin Butts without Flanges, each .....	.08
C—Butt Flanges only with Centre Pins fitted, per set of 90.....	1.50
C—Butt Flanges only with Centre Pins fitted, per doz.	.30
C—Butt Flanges only with Centre Pins fitted, each...	.04
D—Butt Flanges made to order with Centre Pins fitted, per set of 90.....	2.25

When ordering Butts state with or without felt on Catches. Butts made to order charged extra.



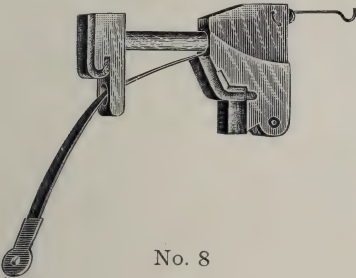
BRASS FLANGE BUTTS COMPLETE



No. 7

Per set of 90.....	\$5.00
Per dozen.....	.85
Each.....	.10

BRASS FLANGE BUTTS COMPLETE  
FRENCH STYLE



No. 8

A—Per set of 90.....	\$5.75
A—Per dozen.....	.95
A—Each.....	.10
B—Silk Loops for same, per set of 90.....	.75
B—Silk Loops for same, per dozen.....	.15
C—We also carry the Pin Butt (French style) in stock, per set of 90, complete with Flanges.....	5.25
Per dozen.....	.90
Each.....	.10
D—Flanges with Silk Loops, per set of 90.....	2.20
D—Flanges with Silk Loops, per dozen.....	.45

MADE IN CANADA

## HAMMER BUTT BRASS FLANGES COMPLETE



No. 9

A—Made to order only, per set.....	\$2.50
A—Made to order only, per section.....	1.50
B—Brass Flanges, for single note, per dozen.....	.60
B—Brass Flanges, for single note, one only.....	.10

All the above include Plates and Screws.

## HAMMER BUTT BRASS FLANGE PLATES

No. 10



Style 1

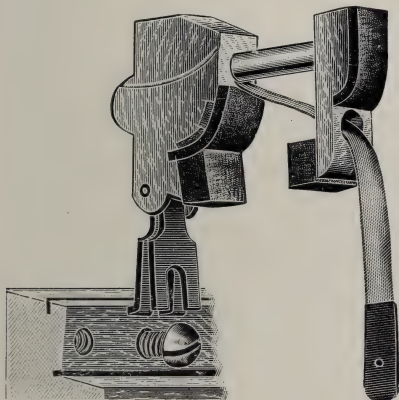


Style 2

Brass Flange Plates, per set.....	\$0.45
Brass Flange Plates, per dozen.....	.10
Brass Flange Screws, per set.....	.20
Brass Flange Screws, per dozen.....	.05

In ordering state which is required.

## BILLINGS PATENT SPRING METAL FLANGE



No. 11

Showing how it can be removed without taking the screw out of the Rail.

Butts complete without Flanges, per set of 90.....	\$5.00
Butts complete without Flanges, per dozen.....	.85
Butts complete without Flanges, each.....	.10

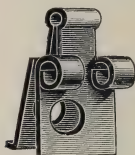
MADE IN CANADA

## BILLINGS PATENT SPRING METAL FLANGES



A

Butt, Wipp and Tongue Flanges, per set of 90.....	\$1.25
Butt, Wipp and Tongue Flanges, per dozen.....	.30
Butt, Wipp and Tongue Flanges, each.....	.04



B

Damper Flanges, per set of 70.....	\$1.50
Damper Flanges, per dozen.....	.40
Damper Flanges, each.....	.05

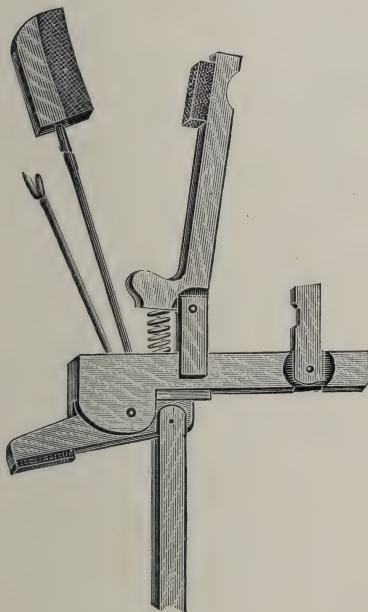


C

Fly Flanges, per set of 90.....	\$1.35
Fly Flanges, per dozen.....	.35
Fly Flanges, each.....	.04

## UPRIGHT / WIPPEN

USED ON STYLE 1.



No. 12

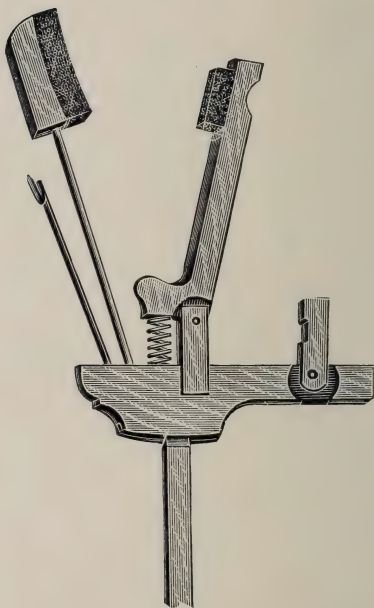
Lost Motion Wippen without Abstracts, per set of 90	\$5.50
Lost Motion Wippen without Abstracts, per dozen....	.90
Lost Motion Wippen without Abstracts, each.....	.10

MADE IN CANADA



UPRIGHT WIPPEN

USED ON STYLE 2.

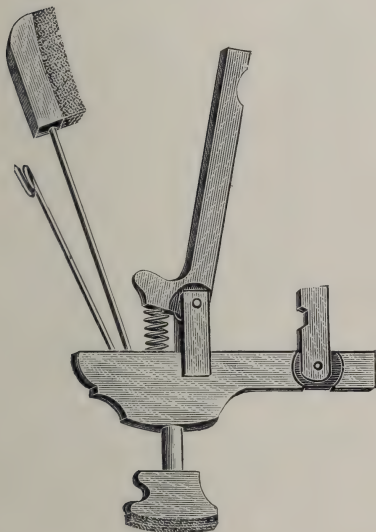


No. 13

Abstract Wippen without Abstracts, per set of 90 ....	\$5.25
Abstract Wippen without Abstracts, per dozen.....	.90
Abstract Wippen without Abstracts, each.....	.10

## UPRIGHT WIPPEN

USED ON STYLE 3.



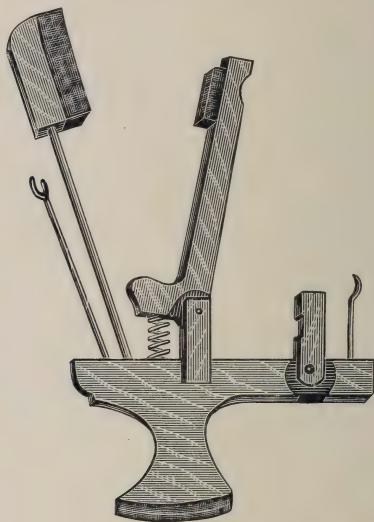
No. 14

Extension Wippen, per set of 90.....	\$6.25
Extension Wippen, per dozen.....	1.10
Extension Wippen, each.....	.15

MADE IN CANADA

# UPRIGHT WIPPEN

USED ON STYLE 3 INSTEAD OF THE EXTENSION.



No. 15

High Wippen, per set of 90.....	\$5.50
High Wippen, per dozen.....	.90
High Wippen, each.....	.10

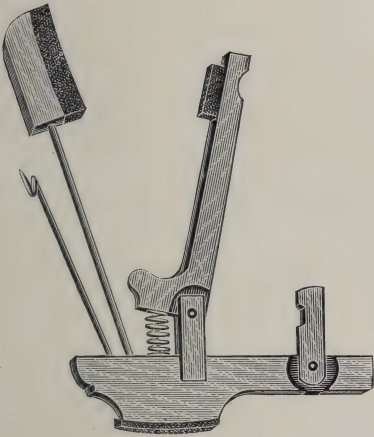
These Wippen are made in three heights.

In ordering send sample or sketch.

MADE IN CANADA

UPRIGHT WIPPEN

USED ON STYLE 4.

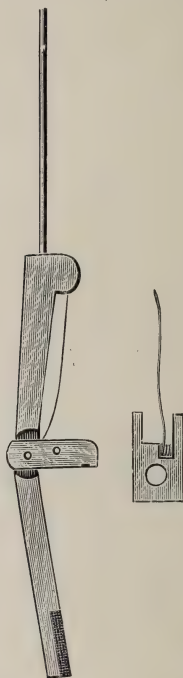


No. 16

Low Wippen, per set of 90.....	\$5.25
Low Wippen, per dozen.....	.90
Low Wippen, each.....	.10

## UPRIGHT DAMPER LEVERS

No. 17



A—Damper Levers complete, per set of 70.....	\$3.00
A—Damper Levers complete, per dozen.....	.75
A—Damper Levers complete, each.....	.10
B—Damper Flanges with springs, per set of 70.....	1.20
B—Damper Flanges with springs, per dozen.....	.35

When ordering Flanges only, state if strong, medium or weak springs are wanted.

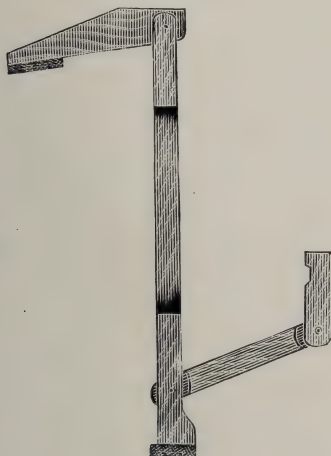
MADE IN CANADA



## UPRIGHT LOST MOTION ACTION ABSTRACTS

COMPLETE WITH TONGUES AND FLANGES.

No 18



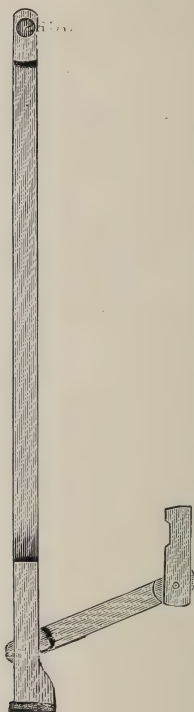
A—In Standard Sizes, per set of 90.....	\$4.25
A—In Standard Sizes, per dozen.....	.75
A—In Standard Sizes, each.....	.10
B—Tongues and Flanges only, per set of 90.....	\$1.75
B—Tongues and Flanges only, per dozen.....	.35
B—Tongues and Flanges only, each.....	.05
C—Flanges only, per set of 90.....	\$1.25
C—Flanges only, per dozen.....	.25
C—Flanges only, each.....	.04

Abstracts when made to order are charged extra.

MADE IN CANADA

## UPRIGHT ACTION ABSTRACTS

No. 19



In Standard Sizes, per set of 90.....	\$3.60
In Standard Sizes, per dozen.....	.70
In Standard Sizes, each.....	.10

Price on Tongues and Flanges the same as on page 31.  
 Abstracts when made to order are charged extra.

MADE IN CANADA

## UPRIGHT ACTION RAILS

No. 20



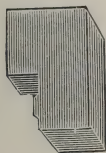
A



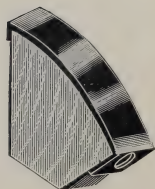
B



C



D



E

A—Main Action Rail for Wood Flanges.

B—Main Action Rail for Brass Flanges.

C—Large Bottom Rail.

D—Small Bottom Rail.

E—Hammer Rail, with Shell or Varnished.

For prices and how to order see next page.

Main Action Rail bored to scale.....	Price \$0.80
If fitted with single damper rod and props.....	Price 1.60
If fitted with double damper rod and props.....	Price 2.00
Large Bottom Rail, bored to scale.....	Price .65
Small Bottom Rail, bored to scale .....	Price .60
Hammer Rail, either with shell or varnished, covered with cloth and hooks attached.....	Price 1.50

If special shapes of rails are required other than our standard sizes, an extra price will be charged.

In ordering, send us the old rail or a wooden rod showing the centre of each note.

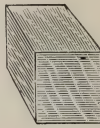
### UPRIGHT ACTION RAILS



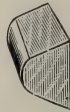
F



G



H



I



J

F—Plain Spring Rail.

G—Standard Spring Rail.

H—Regulating Rail.

I—Stop Rail Style A.

J—Stop Rail Style B.

For prices and how to order, see next page.

Spring Rail No. 6, covered with felt.....	Price	\$0.30
Spring Rail No. 7, bored to scale, with springs attached and covered with felt.....	Price	.85
Regulating Rail, bored to scale, with screws, buttons and punches, complete.....	Price	.85
Stop Rail No. 9 or 10, with screws, and covered with felt.....	Price	.60

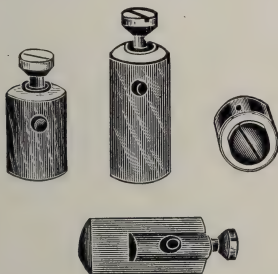
In ordering, send old rail or a wooden rod showing centre of each note.

If special shapes have to be made an extra charge will be made.

To save express charges, the rod can be sent in sections by mail. Two feet is the longest parcel the mail will carry.

### UPRIGHT ACTION DAMPER BLOCKS

No. 21



Style 1—Round Damper Blocks, fitted with brass sockets and screws, per set of 70.....	\$0.90
Style 1—Round Damper Blocks, fitted with brass sockets and screws, per dozen.....	.25

The short blocks are used for bass section.

The long blocks are used for middle and treble sections.

In ordering, specify the number of short and long blocks required, also the style.



Brass Damper Block Sockets with screws, per set of 70	\$0.50
Brass Damper Block Sockets with screws, per dozen..	.15

MADE IN CANADA

UPRIGHT ACTION DAMPER BLOCKS



- Style 2—Round Damper Blocks, fitted with special  
brass sockets and screws, per set of 70..... \$1.20
- Style 2—Round Damper Blocks, fitted with special  
brass sockets and screws, per dozen..... .35
- The short blocks are used for bass section.  
The long blocks are used for middle and treble sections.  
In ordering specify the number of short and long blocks  
required, also the style.



- Special Brass Damper Sockets and Screws, per set of 70 \$0.75
- Special Brass Damper Sockets and Screws, per dozen. .20

UPRIGHT ACTION DAMPER HEADS



No. 22



- Damper Heads for Round Blocks, covered with felt,  
price per set..... \$1.00
- In ordering specify if for style 1 or 2.  
The difference is in the size of the holes.



## UPRIGHT ACTION DAMPER PLATES FOR BASS SECTION



No 23



Style No. 1.

Style No. 2.

Style 1—Small Square Bass Plates, without felt, per set of 30.....	\$0.30
Style 1—Small Square Bass Plates, without felt, per dozen.....	.15
Style 2—Long Bass Plates, covered with felt, per set of 30.....	\$0.40
Style 2—Long Bass Plates, covered with felt, per doz.....	.20
If required without felt, per set of 30.....	.30
Per dozen.....	.15

In ordering specify for which style of Damper Block they are required.

## UPRIGHT ACTION DAMPER BLOCKS



No. 24



Square Damper Blocks fitted with brass sockets and screws, per set of 70.....	\$1.00
Square Damper Blocks fitted with brass sockets and screws, per dozen.....	.30

The small blocks are used for bass section.

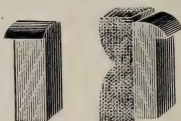
The large blocks are used for middle and treble sections.

In ordering specify the number of small and large blocks required.

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### UPRIGHT ACTION DAMPER HEADS

No. 25



Damper Heads for square blocks, covered with felt, per set..... \$1.00

We also furnish the wooden part only for Bass Plates.

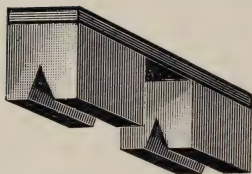
Per set of 30..... .40

Per dozen..... .20

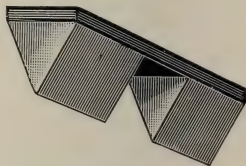
In ordering wooden part only state if for Bass Plates.

### UPRIGHT ACTION BASS DAMPER WEDGES

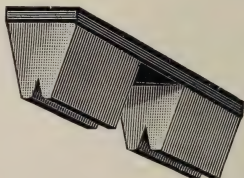
No. 26



A—FOR SINGLE STRINGS



B—FOR DOUBLE STRINGS.



C—FOR THREE STRINGS (Also called Tricords)

These Wedges are supplied in two sizes:  $1\frac{3}{8}$  wide and  $1\frac{3}{4}$  wide.

Per set,  $1\frac{3}{8}$  wide..... \$0.45

Per set,  $1\frac{3}{4}$  wide..... .55

If back strips are required 5 cents per set will be charged extra.

In ordering specify how many of each are required and what width.

MADE IN CANADA

## UPRIGHT ACTION CLOTHS AND FELTS

A—Hammer Rail Cloth in strips 54" long, 1½" wide, in Green or Olive, per dozen.....	\$3.00
A—Hammer Rail Cloth in strips 54" long, 1½" wide, in Green or Olive, each. ....	.30
B—Wipp or Abstract Cloth in strips 30½" long, 1" wide, in Brown, Green or Olive, per dozen....	2.75
B—Wipp or Abstract Cloth in strips 30½" long, 1" wide, in Brown, Green or Olive, each.....	.25
C—Damper Lever Cloth in strips 28" long, 1" wide, per dozen.....	2.25
C—Damper Lever Cloth in strips 28" long, 1" wide, Each.....	.20
D—Bushing Cloth in strips 16" long, ⅝" wide, per dozen.....	.40
D—Bushing Cloth in strips 16" long, ⅝" wide, each..	.05
Three strips will be sufficient for one set of Flanges.	
We carry two thicknesses in stock, for rebushing Butt, Wipp and Fly Flanges the thicker bushing should be used. For all other centres the thinner bushing will answer better. In ordering specify which thickness.	
E—Butt Cloth for under Leather in strips 34" long, ⅜" wide, per dozen.....	\$0.90
E—Butt Cloth for under Leather in strips 34" long, ⅜" wide, each.....	.10
F—Butt Felt in strips 34" long, ⅝" wide, per dozen..	.90
Butt Felt in strips 34" long, ⅝" wide, each.....	.10
G—Catch Felt in strips 34" long, ⅜" wide, per dozen..	.90
G—Catch Felt in strips 34" long, ⅜" wide each.....	.10
H—Fly Felt in strips 34" long, ⅜" wide, per dozen..	.90
H—Fly Felt in strips 34" long, ⅜" wide, each.....	.10
I—Spring Rail Felt in strips 54" long, ⅞" wide, per dozen.....	1.20
I—Spring Rail Felt in strips 54" long, ⅞" wide, each..	.15
J—Back Check Felt, Green or Olive in strips 34" long, 1⅛" wide, per dozen.....	2.75
J—Back Check Felt, Green or Olive in strips 34" long, 1⅛" wide, each.....	.25

### UPRIGHT ACTION CLOTHS AND FELTS

K—Tapered Damper Head Felt in strips 20" long, 1 $\frac{3}{4}$ " wide, per dozen.....	\$3.00
K—Tapered Damper Head Felt in strips 20" long, 1 $\frac{3}{4}$ " wide, each.....	.30
L—Muffler Felt for soft stop or practice pedal in strips of 55" long, 3" wide, per dozen.....	3.40
L—Muffler Felt for soft stop or practice pedal, in strips of 55" long, 3" wide, each.....	.35
M—Scarlet Name Board Felt in pieces 50" long, $\frac{7}{8}$ " wide, per dozen.....	.90
M—Scarlet Name Board Felt in pieces 50" long, $\frac{7}{8}$ " wide, each.....	.10
N—Rubbing Felt in pieces 6" long, 4" wide, per dozen	.40
N—Rubbing Felt in pieces 6" long, 4" wide, each....	.05
O—Polishing Felt in pieces 6" long, 4" wide, per dozen .	.30
O—Polishing Felt in pieces 6" long, 4" wide, each....	.05

### UPRIGHT ACTION LEATHER AND PUNCHINGS

A—Buckskin for covering Butts, shaved to an even thickness, in strips $\frac{7}{8}$ " wide, sufficient for one set, per set.....	\$1.00
Per dozen sets.....	9.00
B—Buckskin, for covering Catches, shaved to an even thickness 1 $\frac{1}{8}$ " wide, sufficient for one set, per set	.75
Per dozen sets.....	7.00
C—Capping Leather, for covering Hammers, in strips 3" wide per lineal foot, per foot.....	.75

No. 29

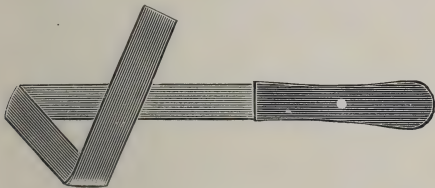


A—Cloth Punchings for Regulating Rails, per dozen sets.....	\$0.90
Per set of 90.....	.10
B—Cloth Punchings for Butts or Levers, per dozen sets	.65
Per set of 90.....	.07

MADE IN CANADA

## UPRIGHT ACTION PUNCHINGS, BRIDLES, ETC.

C—Thin Scarlet Felt Punchings, for Jack Springs, per dozen sets.....	\$0.50
C—Thin Scarlet Felt Punchings for Jack Springs, per set of 90 .....	.05



No. 30

Bridle Straps complete, per set of 90.....	\$0.30
Bridle Straps complete, per dozen sets .....	3.00

We can supply these in red or dark leather tips.

## UPRIGHT ACTION PARTS



No. 31

A—Back Checks with wires complete, per set of 90...	\$1.60
Per dozen.....	.30
B—Back Checks, without wires, per set of 90.....	1.25
Per dozen.....	.25

We can supply with Green or Olive felt.



No. 32

Back Check Wires, per set of 90.....	\$0.25
Per dozen.....	.05

We can supply these also, threaded on both ends. In ordering specify which is required.

MADE IN CANADA

### UPRIGHT ACTION DOWELLS



No. 33

With wires complete, per set of 90.....	\$1.25
Per dozen.....	.25
In ordering give length over all.	

Dowells without wire, per set of 90.....	.80
Per dozen.....	.20

We can supply Dowells of the following sizes (wood part only) 1", 1¼", 1½", 1¾", 2", 2¼", 2½".

### DOWELL WIRES



No. 34

Dowell Wires in sizes from 1¾" to 2¾" long, per set..	\$0.35
Dowell Wires in sizes from 3" to 4" long, per set.....	.40

### DAMPER LEVER WIRE



No. 35

Per set of 70.....	\$0.20
Per dozen.....	.05

### DAMPER SPOONS



No. 36

Per set of 70.....	\$0.20
Per dozen.....	.05

We also carry them with threaded end. In ordering specify.

MADE IN CANADA



REGULATING RAIL SCREWS



No. 37

Per set of 90.....	\$0.15
Per dozen.....	.04

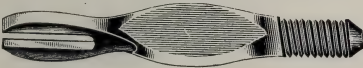
REGULATING RAIL BUTTONS



No. 38

Per set of 90.....	\$0.12
Per dozen.....	.03

REGULATING RAIL PROPS



No. 39

Per dozen.....	\$0.15
Each.....	.02

BRIDLE WIRE



No. 40

Per set of 90.....	\$0.15
Per dozen.....	.04

HAMMER RAIL HOOKS



No. 41

Per dozen.....	\$0.12
Each.....	.02

We can supply these in lengths of 2¼", 2½", 2¾".

BRASS HAMMER RAIL HOOKS

USED IN BASS END OF RAIL

No. 42



Per dozen.....	\$0.60
Each.....	.08

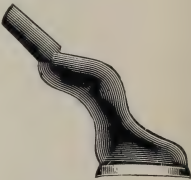
HAMMER RAIL LIFTER

(NICKEL PLATED) INCLUDING TWO SCREWS



Style 1

No. 43



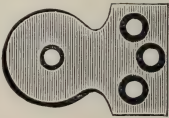
Style 2

Each.....	\$0.20
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HAMMER RAIL PLATE

INCLUDING THREE SCREWS

No. 44



Each.....	\$0.05
-----------	--------

**HAMMER RAIL THIMBLE**

INCLUDING ONE SCREW

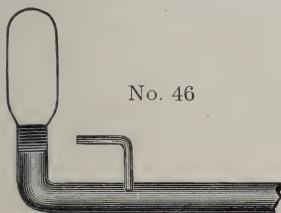
No. 45



Per dozen.....	\$0.45
Each.....	.05

**DAMPER ROD (Nickel Plated)**

No. 46



A—Single Rod, each. ....	\$0.25
B—Double Rod, per pair.....	.50

Send size of each when ordering.

**DAMPER ROD NUT**

INCLUDING SCREW

No. 47



Each.....	\$0.05
-----------	--------

**BRASS CAPSTAN SCREWS**

No. 48



1 1/8" long.

Per set of 90.....	\$0.85
Per dozen.....	.20

MADE IN CANADA

JACK SPRINGS



Per set of 90.....	\$0.40
Per dozen.....	.10

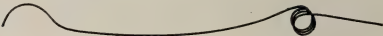
DAMPER FLANGE SPRINGS



In three sizes—strong, medium and weak, per set of 70	\$0.30
Per dozen.....	.08

In ordering specify what size is wanted.

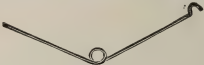
SPRING RAIL SPRING



No. 51

Per set of 90.....	\$0.35
Per dozen.....	.10

SPECIAL JACK SPRINGS



No. 52

Per set of 90.....	\$0.60
Per dozen.....	.15

SPECIAL BUTT SPRINGS



No. 53

Per set of 90.....	\$0.60
Per dozen.....	.15

We also make any style of special spring to order.

**SPRING RAIL PROP (Nickel Plated)**

Style 1—Per dozen.....	\$1.20
Each.....	.15



Style 2—Whitened only, per dozen.....	\$0.45
Each.....	.05

**LOST MOTION ATTACHMENT**  
COMPLETE WITH SCREWS TO SUIT



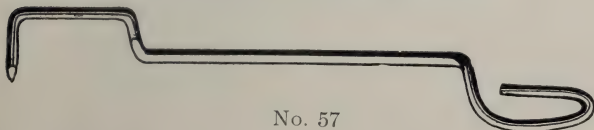
No. 55

Each.....	\$0.85
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**SUSTAINING LEVER WIRE**  
WITH BUSHING CLOTH TIP



Per set of 70.....	\$0.75
Per dozen.....	.15

**UPPER DAMPER LEVER WIRES**

No. 57

Per dozen.....	\$0.25
Each.....	.03

MADE IN CANADA

STOP RAIL SCREWS  
RIGHT AND LEFT THREAD

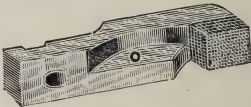


No. 58  
Two lengths.

Per dozen..... \$0.20  
Each ..... .02

We carry two lengths in stock 2 3/8" and 2". In ordering specify which.

SUSTAINING DAMPER ROD FLANGES



No. 59

In standard sizes, each..... \$0.15

We make these in several shapes. In ordering send sample. If made to order an extra price will be charged. We make several styles.

ROCKERS FOR UPRIGHT ACTION



No. 60

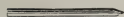
With Centre Pin, or covered with cloth, per set..... \$1.75  
Per dozen..... .35



## CENTRE PINS



No. 61



We only carry German Silver Pins in stock. The following are standard sizes always kept in stock:—No. 18, 20,  $20\frac{1}{4}$ ,  $20\frac{1}{2}$ ,  $20\frac{3}{4}$ , 21,  $21\frac{1}{2}$ , 22, 23, 24, 25, 26, 27, 28, 29. In ordering specify or send sample.

Per set of 90.....	\$0.10
Per $\frac{1}{4}$ lb.....	.30

## FILLISTER HEAD ACTION SCREWS

No. 62



For Butts, Wipps and Tongues, size  $\frac{3}{4}$  No. 8 is used.

A—per set of 90.....	\$0.15
Per dozen.....	03

## FILLISTER HEAD ACTION SCREWS

If Screws overturn in Butts, Wipps or Tongues we supply a larger screw, viz.,  $\frac{3}{4}$  No. 9.

B—Per set of 90.....	\$0.20
Per dozen.....	.05

Everybody should have some of these on hand.

For Damper Lever Flanges  $\frac{11}{16}$  No. 7 is used.

C—Per set of 90.....	\$0.15
Per dozen.....	.03

For Regulating Rail Props and Damper Rod Nuts  $\frac{5}{8}$  No. 6 are used.

D—Per set of 90.....	\$0.15
Per dozen.....	.03

### OVAL HEAD WOOD SCREWS

No. 63

For screwing Brackets to Rails.  $\frac{5}{8}$  No. 7.

Per set of 90.....	\$0.12
Per dozen.....	.02

Oval Head Wood Screws,  $1\frac{1}{8}$  No. 7.

B—Per set of 90.....	.18
Per dozen.....	.03

### SPECIAL ROUND HEAD WOOD SCREWS

(WITH LARGE HEAD)

No. 64

For screwing Spring Rail to Bracket.

A—Per dozen.....	.08
Each .....	.01

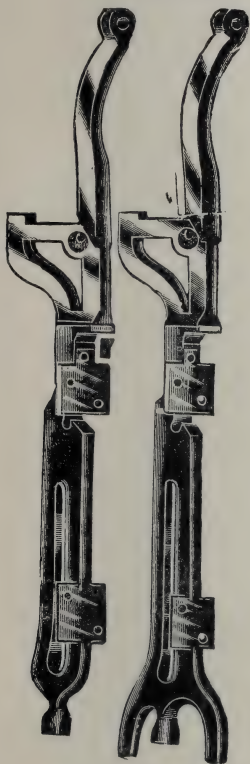
### ROUND HEAD MACHINE SCREWS

For screwing Spring Rail to Bracket,  $\frac{7}{8}$  No. 8, 32 pitch.

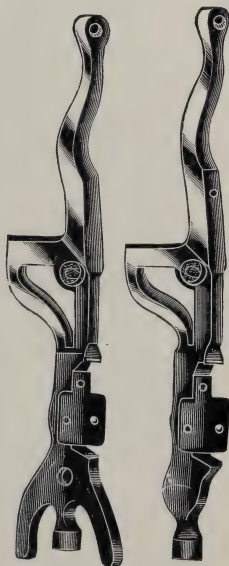
B—Per dozen .....	.08
Each.....	.01

We can procure any other screw at the lowest price. In ordering send sample.

## UPRIGHT ACTION BRACKETS



Style 1



Style 2

No. 65

Style 1—Nickel plated, drilled and bushed for Abstract Action. In standard or stock sizes.

Per set of four.....	\$1.20
Each .....	.35
Style 2—Per set of four.....	1.00
Each.....	.30

MADE IN CANADA

Brackets made specially to order will be charged extra. In case brackets are broken if they are sent to us we can use them as patterns.

Estimated price from \$1.50 to \$2.50 each. This work is charged by the hour at 50 cents per hour.

TOP BRACKET BOLTS



No. 66

WITH NICKEL PLATED NUTS

$\frac{3}{8}$ " in Diameter, in lengths 4", 4½", 5", 5½", per set of four.....	\$0.25
Each.....	.08

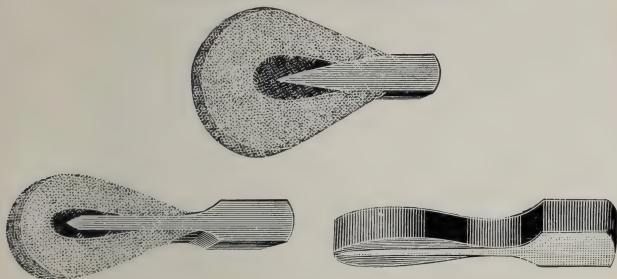
BOTTOM BRACKET BOLTS



No. 67

$\frac{3}{8}$ " in diameter, in lengths 3", 3½", 4", 4½", 5", per set of four.....	\$0.20
Each.....	.06

## UPRIGHT PIANO HAMMERS



No. 68

Double Coat F.F. Quality Felt, per set.....	\$6.50
Single Coat F.F. Quality Felt, per set....	6.25
Double Coat 1st Quality Felt, per set.....	5.25
Single Coat 1st Quality Felt, per set.....	5.00
Double Coat 2nd Quality Felt, per set.....	4.25
Single Coat 2nd Quality Felt, per set.....	4.00

In ordering Hammers send us the first and last Hammer of each section and leave the Shank in the Hammer. This is for the purpose that we can bore the new Hammer exactly the same slant. State how many notes are in each section.

Also specify if the old Shanks are to be used again, so that we can make the hole of the proper size to fit Shank. If new Shanks are required specify this in the order. If the Hammer Butts are to be rebored, that is, the old Shanks taken out, send us the Butts and we will rebore them.

Per set..... \$0.75

We carry an inexpensive Hammer Shank extractor in stock as shown on page 116. With this tool the Hammers can be taken off without damaging the Shanks.

## UPRIGHT PIANO HAMMER SHANKS

No. 69 

In Maple, per set of 95....	\$0.50
Per dozen.....	.10
In Cedar, per set of 95.....	.75
Per dozen.....	.15

MADE IN CANADA

DOWELLS FOR TRAP WORK, ETC.

We carry the following sizes of Dowells in stock, in lengths of about four feet. If special lengths are wanted specify them.

$\frac{5}{16}$ ", $\frac{3}{8}$ ", $\frac{1}{2}$ ", per dozen.....	\$0.60
Each.....	.06
$\frac{5}{8}$ ", $\frac{3}{4}$ ", per dozen.....	.75
Each .....	.07

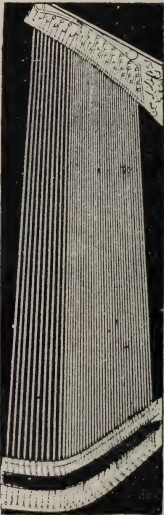


No. 70

Maple or Birch. Price on larger quantities on application.

COVERED BASS  
STRINGS

No. 71



—Wrest or Agraffe  
Pin Line.

—Bridge Pin Line.  
—Hitch Pin Line.



**COVERED PIANO BASS STRINGS****How to Order.**

If a single string is required send the old string or the next one to it, and state if the next larger or smaller size is wanted.

If a full set is required send an impression on a sheet of strong paper. Also send the both end strings. To take the impression take a strong piece of paper, stretch it firmly over the strings then press the paper over the Hitch Pins, also over the Bridge Pins and the Wrest or Agraffe Pins. Be sure that these impressions are accurate and that the paper is not shifted while the impression is taken. Also mark where the covering begins and ends.

If the entire old set is sent the impression is not necessary. In sending the old strings tie them in the manner as they were in the piano.

Price for single string with Iron Wire Covering, small size, each.....	\$0.15
Large size, each.....	.20
With Copper Wire, small size, each.....	.20
Large size, each.....	.25
Price for entire sets, with all Iron Wire Covering....	3.75
With part Copper Wire Covering.....	4.00
With all Copper Wire Covering.....	4.50

**MUSIC WIRE****No. 72**

In quarter-pound coils, Red Cross brand, sizes from No. 9 to No. 22, per coil..... \$0.25

Other sizes can be secured at short notice. Price on application.

**POEHLMAN WIRE**

In quarter-pound coils, sizes from No. 7 to No. 26, per coil ..... \$0.40

Other brands secured at shortest notice. Price on application.

**MADE IN CANADA**





**GRAND**  
**PIANO ACTIONS**  
**PARTS**  
**AND**  
**HARDWARE**

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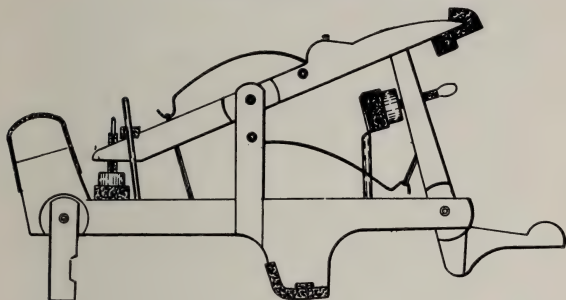
**ALL PRICES SUBJECT TO CHANGE**  
**WITHOUT NOTICE**





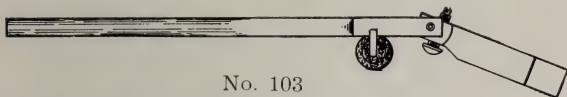




**GRAND WIPPEN**

No. 102

Per set of 90.....	\$25.00
Each.....	.50

**GRAND HAMMER SHANK (WITH FLANGE)**

No. 103

Per set of 90.....	.50
Per dozen.....	.80
Each.....	.10
Flanges only, per set of 90.....	2.50
Per dozen.....	.50
Each.....	.07

When ordering send sample.

**GRAND BACK CHECK (WITH WIRE)**

No. 104



Per set of 90.....	\$2.75
Per dozen.....	.55
Each.....	.07

In ordering give length over all.

MADE IN CANADA



**GRAND DAMPER HEAD**

No. 105



(Rosewood head, French Polished). Made to order only.

Per set..... \$5.75

In ordering send a scale showing the slant of strings.

**GRAND DAMPER WIRE**

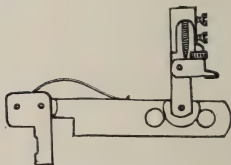
No. 106

Per set of 70.....	\$0.60
Per dozen.....	.15
Each.....	.02

**GRAND DAMPER LEVERS**

WITH BLOCKS AND FLANGES

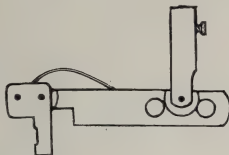
No. 107



Style 1—With sustaining attachment, per set of 70..	\$5.20
Per dozen.....	1.10
Each.....	.15
Flanges only, per set of 70.....	2.40
Per dozen.....	.60
Each.....	.10

**MADE IN CANADA**

No. 108



Style 2—Per set of 70.....	\$4.75
Per dozen.....	1.00
Each.....	.15
Flanges only, per set of 70.....	2.40
Per dozen.....	.60
Each.....	.10

**GRAND ACTION RAIL**

No. 109



Bored to Scale, each.....	\$0.75
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**GRAND WIPP RAIL**

No. 110



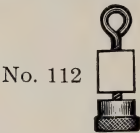
Bored to Scale, each.....	\$0.60
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**GRAND DAMPER RAIL**

No. 111

Bored to Scale, each.....	\$ .60
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GRAND REGULATING RAIL

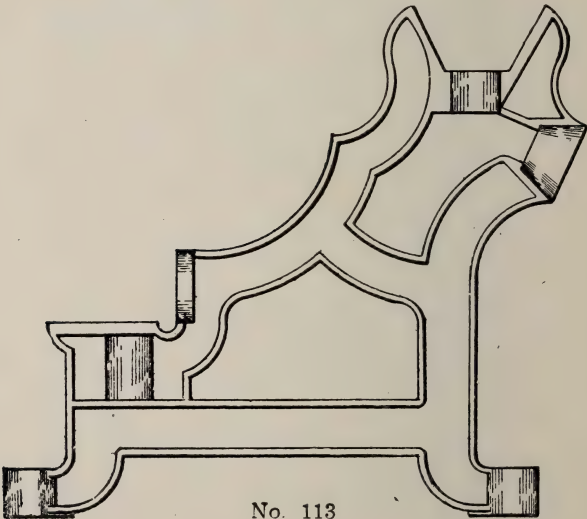


No. 112

Bored to Scale, complete with screws, buttons and punching each.. ..... \$0.95

GRAND ACTION BRACKET

NICKEL PLATED ON EDGES, DRILLED AND TAPPED COMPLETE, INCLUDING SCREWS.



No. 113

In stock sizes, per set of five ..... \$2.00  
In stock sizes, each ..... .50  
Special sizes made to order. Price on application.

**GRAND DAMPER ACTION BRACKET**

Standard sizes, per set of four.....	\$0.80
Each.....	.25

**GRAND REPETITION HOOK**

No. 114

Per set of 90.....	\$0.25
Per dozen.....	.05

**GRAND REPETITION LEVER BUTTON SCREW**

No. 115

Per set of 90.....	\$0.20
Per dozen.....	.05

The same screw is used on the Jack.

**GRAND REPETITION SPRING SET SCREW**

No. 116

Per set of 90.....	\$0.25
Per dozen.....	.05

**GRAND REGULATING RAIL BRACE**

No. 117

Per dozen.....	\$0.45
Each.....	.05

MADE IN CANADA

GRAND BUTT FLANGE LET OFF SCREW



No. 118

Per set of 90.....	\$0.40
Per dozen.....	.10

GRAND CAPSTAN SCREWS



No. 119

In ordering specify which size.

2" long, per set of 90.....	\$3.00
Per dozen.....	.60
1¾" long, per set of 90.....	\$2.75
Per dozen.....	.55
1⅜" long, per set of 90.....	\$2.50
Per dozen.....	.50

GRAND ACTION SPOON



No. 120

Per set of 90.. ..	\$0.45
Per dozen.....	.10

GRAND ACTION BUTT SCREWS

1" No. 10 FILLISTER HEAD

No. 121

Per set of 90.....	\$0.30
Per dozen.....	.08

The screws used on Wipps and Damper Levers are the regular Action Screws, ¾ No. 8, shown on page 49.

GRAND ACTION WASHERS

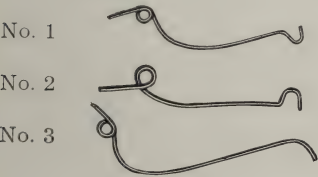
USED IN BUTT FLANGE



No. 122

Per set of 90.....	\$0.50
Per dozen.....	.10

GRAND ACTION SPRINGS



No. 123

No. 1—Spring used for Jacks, per set of 90.....	\$0.60
Per dozen.....	.15
No. 2—Spring for Repetition Levers in three sizes of wire, strong for bass section, medium for middle section, weak for treble section, per set of 90..	.60
Per dozen.....	.15
In ordering specify which.	
No. 3—Spring used on Damper Levers, per set of 35..	.25
Per dozen .....	.15







# **SQUARE PIANO ACTION PARTS**



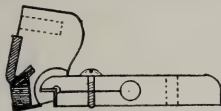
**ALL PRICES SUBJECT TO CHANGE  
WITHOUT NOTICE**





## SQUARE ACTION BUTTS AND FLANGES

No. 150



Per set of 90.....	\$5.25
Per dozen.....	.90
Each.....	.10
Butts only, per set of 90.....	3.00
Per dozen.....	.50
Each.....	.05
Flanges only, per set of 90.....	2.25
Per dozen.....	.40
Each.....	.05

## SQUARE ACTION JACKS AND FLYS

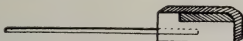
No. 151



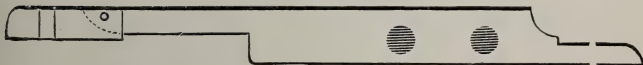
Per set of 90.....	\$4.50
Per dozen.....	.75
Each.....	.10

## SQUARE ACTION BACK CHECKS

No. 152



Per set of 90.....	\$1.25
Per dozen.....	.25
Each.....	.05

SQUARE ACTION DAMPER LEVERS  
WITH FLANGES

No. 153

Per set of 66.....	\$4.00
Per dozen.....	.70
Each.....	.10

### SQUARE ACTION DAMPER HEADS



No. 154



Per set..... \$1.50

### SQUARE ACTION DAMPER LIFTERS



No. 155

Per set of 66..... \$1.00  
 Per dozen..... .25  
 Each..... .05

### SQUARE ACTION PROPS

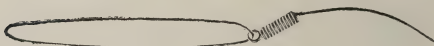


No. 156

Per dozen..... \$0.25  
 Each..... .03

### SQUARE ACTION JACK SPRINGS

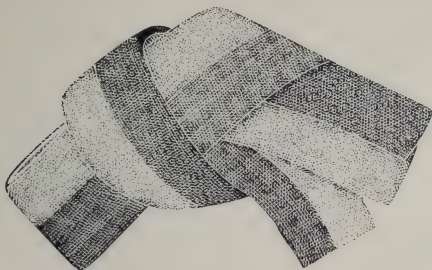
WITH CORDS



No. 157

Per set of 90..... \$0.60  
 Per dozen..... .15

MADE IN CANADA

**BUFF STOPS FOR SQUARE PIANOS**

No. 158

Red leather strip glued on white felt, 34 inches long,  
 Per strip ..... \$0.50

**SQUARE ACTION HAMMERS**

MADE TO ORDER ONLY.

No. 159

Send first and last Hammer of each break and mark the corresponding number on each hammer. Leave shank on Hammer to give us the slant for boring.

First quality Felt ..... \$5.25  
 Second quality Felt ..... 4.50

**SQUARE HAMMER SHANKS**

No. 160

In Maple,  $\frac{7}{32}$ ", per set of 90 ..... \$0.50  
 Per dozen ..... .10  
 In Cedar, per set ..... .75  
 Per dozen ..... .15

**SQUARE PIANO KEYS**

No. 161

Re-covered with celluloid tops and fronts or ivory.  
 Price on application.

In ordering send the frame with keys complete and specify what is desired.

MADE IN CANADA





**UPRIGHT AND  
GRAND  
PIANO KEYS  
AND  
ACCESSORIES**

---

**ALL PRICES SUBJECT TO CHANGE  
WITHOUT NOTICE**







## UPRIGHT PIANO KEYS

MADE TO ORDER ONLY

### How to Order—

Send wooden rod showing the centre of each note on the striking line. Give distance from front of key to striking line in bass and treble end.

Send us a front rail punch, balance rail punch and a piece of the cloth which you intend using under the back end of key. This enables us to determine the height of balance rail.

We make all our keys for a  $\frac{3}{8}$ " touch unless otherwise specified. Our standard front rail is  $3\frac{1}{2}$ " wide and  $\frac{7}{8}$ " thick on the front and  $\frac{13}{16}$ " on the back. Our standard back rail is  $\frac{1}{2}$ " thick.

Rules to determine the correct distance from front of key to balance rail pin (natural key):—

Divide the key from front of ivory to the striking line into five equal parts.

The proper place for the balance rail pin is three parts from the front, leaving two parts to the striking line. This is the recognized standard division. If a lighter touch is desired the pin can be placed nearer the striking line.

State how many cross rails are required, and mark the exact position of them on the Scale Stick.

On pianos where the key bottom is framed the cross rails should come right in the centre of the cross rails of frame.

State quality of ivory desired. State if sharps are to be polished or with natural finish.

State if pine or basswood is to be used for the board.

If key block is required give thickness of same. Prices on application.

It requires about three weeks from the time the order is received before shipment can be made.

MADE IN CANADA



No. 200

PIANO KEY IVORY



No. 201

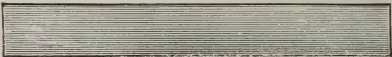
IVORY HEADS

In sets complete (Heads and Tails).

No. 1 quality, per set.....	\$10.85			
No. 2 quality, per set.....	9.60			
No. 3 quality, per set.....	8.90			
No. 4 quality, per set.....	8.25			
Heads only. Quality	No. 1.	No. 2.	No. 3.	No. 4.
Per dozen.....	\$2.05	\$1.90	\$1.75	\$1.65
Each.....	.19	.17½	.16	.15



IVORY TAILS



No. 202

Tails only. Quality	No. 1.	No. 2.	No. 3.	No. 4.
Per dozen.....	\$1.20	\$1.00	\$0.90	\$0.85
Each .....	.11½	.10	.09	.08½

PRICES ON IVORY ARE CONSTANTLY INCREASING.

PIANO SHARPS



No. 203

A—Polished on top and front, per set of 36.....	\$1.40
A—Per dozen.....	.55
A—Each.....	.07
B—With natural finish, per set of 36.....	1.00
B—Per dozen.....	.40
B—Each.....	.05

MADE IN CANADA

### KEY BUTTONS

BUSHED WITH SCARLET CLOTH

No. 204



Style 1—Per set of 90..... \$0.60  
 Per dozen..... .12



Style 2—Per set of 90..... \$0.50  
 Per dozen..... .10

### KEY PINS

OVAL FOR FRONT RAIL.

No. 205



Per set of 90..... \$0.60  
 Per dozen..... .12

No. 206



### ROUND FOR BALANCE RAIL.

Per set of 90 ..... \$0.60  
 Per dozen..... .12

### KEY LEADS

No. 207



In three sizes— $\frac{3}{8}$ ",  $\frac{7}{16}$ ",  $\frac{1}{2}$ ".

There are 57 of the  $\frac{3}{8}$ " Leads in one pound.

There are 44 of the  $\frac{7}{16}$ " Leads in one pound.

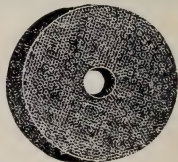
There are 35 of the  $\frac{1}{2}$ " Leads in one pound.

Per pound ..... \$0.10

MADE IN CANADA

**KEY PUNCHINGS**

No. 208

**FOR FRONT RAIL.**

First quality, per set of 90.....	\$0.25
Per dozen.....	.06
Second quality, per set of 90.....	.20
Per dozen.....	.05

No. 209

**FOR BALANCE RAIL**

Per set of 90.....	\$0.10
Per dozen.....	.03

**PAPER PUNCHINGS FOR FRONT RAIL**  
**No. 210**

Tissue, No. 1, per gross .....	\$0.03
Manilla, Nos. 2-5, per gross .....	.04
Cardboard, thin, Nos. 6-9, per gross.....	.06
Cardboard, medium, Nos. 10-13, per gross .....	.08
Cardboard, thick, Nos. 13-17, per gross.....	.10

**PAPER PUNCHINGS FOR BALANCE RAIL.**  
**No. 211**

Tissue, No. 21, per gross.....	\$0.03
Paper, No. 22 and 23, per gross.....	.04
Manilla, 24 to 26, per gross .....	.05
Cardboard, No. 27 to 29, per gross.....	.06

**KEY BOLSTER CLOTH****FOR UNDER BACK OF KEYS.****No. 212**

In strips 1½" wide, 9 yards (enough for 6 sets).....	\$1.00
Per strip 4' 6" long .....	.20

**MADE IN CANADA**

**KEY BUSHING CLOTH**

No. 213

In strips $\frac{3}{8}$ " wide, 54" long, per dozen.....	\$0.50
Each.....	.05

It requires one strip to bush the front holes of one key-board, and one strip and a half for one set of buttons.

**GRAND PIANO KEYS**

No. 214

**How to Order**

The same rules apply as on Upright Keys with the following addition, viz.: Send a sketch showing the striking line and the end of the key and how it is to be rabbitted for the felt of the Damper Action Levers, also show the back rail of the key frame.

Price on application.

It takes about three weeks from the time the order is received before shipment can be made.

**CELLULOID FOR PIANO KEYS**

No. 215

POLISHED ON ONE SIDE.

For Tops, 6 sets.....	\$6.00
Each.....	1.25
For Fronts, 6 sets.....	.90
Each.....	.20

**CELLULOID CEMENT**

No. 216

Put up in bottles, per 1 pint .....	\$0.50
Per $\frac{1}{2}$ pint .....	.30

**REPAIRING PIANO KEYS**

No. 217

We re-cover old or damaged keys with Ivory or Celluloid, and re-bush the same, re-polish sharps, etc.

Always send the frame with the keys on. Price on application.

**CELLULOID STRAIGHT EDGES**

No. 218

48" long, 2" wide, with Pine or Maple centre.....	\$1.00
From 18" to 22" long, $1\frac{1}{2}$ " wide, each.....	.40
From 23" to 26" long, $1\frac{1}{2}$ " wide, each.....	.50

**MADE IN CANADA**







**REED AND  
CHURCH ORGAN  
KEYS  
REEDS, REEDBOARDS  
AND  
ORGAN SUPPLIES**

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**ALL PRICES SUBJECT TO CHANGE  
WITHOUT NOTICE**





## THE DISCOLORATION OF ORGAN KEYS

We have proved to our entire satisfaction that the cause is with the player, that is to say, the acids in the perspiration from the hands coming in contact with the keys form a deposit on them, and a chemical action takes place and produces the discoloration. It does not penetrate to any extent and is readily removed by taking a little pumice stone powder; then take a soft piece of canton flannel and dampen it with water and rub until the keys are clean and white. It takes a little time to clean in case the keys are very bad, but if the keys are wiped off with above once in a while, and kept clean, there should be no trouble. Care should be taken not to get the cloth too wet and allow the solution to get between the keys.

### REED ORGAN KEYS



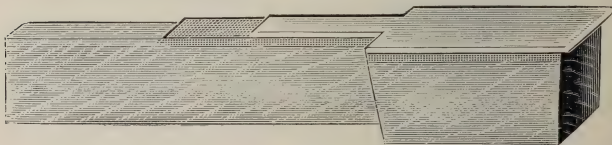
No. 250

Covered with Ivory or Celluloid. Made in 4, 4½, 5, 6 and 7 octaves. In ordering state what length the key is to be, also how far the frame is to stick out at the sides. Our standard frame projects 1½" on each side.

When Double Bank Keys are required send us a sketch showing the length of key top and bottom.

Price on application.

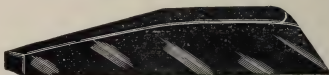
### OTTO HIGEL CO. PATENT ORGAN KEYS



The above illustration shows our patent Organ Key Top with hardwood veneer.

This key is far superior over the old style of key without the hardwood veneer, because it does **not** sink in over the mortise hole or become dished.

### ORGAN KEY SHARPS



No. 251

Per dozen.....	\$0.24
Each.....	.03

MADE IN CANADA

**CHURCH ORGAN KEYS**

No. 252

Made to Order only. With Ivory or Celluloid Covering.

**How to Order**

Send wooden rod showing the centre of each note on back of key.

Send a sketch showing the side view of key and full particulars.

If frame is desired show shape of cheek, etc., also state what kind of wood is desired.

State what No. of Ivory is to be used.

State if key is to be made in A or C scale, in other words, if the bass end of the key is to begin with A or C.

Price on application.

**ORGAN REEDS**

No. 253



No. 1—Perfection Reed.



No. 2—Diapason Reed.



No. 3—Wide Tongue Cello Reed.

Per Octave .....	\$0.40
Each.....	.07

The above prices do not include tuning or voicing.

For tuning and voicing extra, per octave.....	.30
Each.....	.18

**MADE IN CANADA**

## ORGAN REEDS

In ordering odd Reeds to be tuned and voiced send the corresponding Reed one octave above or below.

We also keep in stock the following Reeds: Piccolo, Flute, Cello, Trumpet.

## SUB BASS REEDS

No. 254

No. 1—Each.....	\$0.15
Per set of 13.....	.85
No. 2—Each.....	.20
Per set of 13.....	1.00
No. 3—Each.....	.30
Per set of 13.....	3.00
No. 3—Pedal Bass, each.....	.30
Pedal Bass, 30 notes.....	5.00
No. 4—Sub Bass, each .....	.40
Sub Bass, per set of 13.....	3.50
No. 4—Pedal Bass, each.. ..	.40
Pedal Bass, 30 notes.....	6.00
For retonguing any reed.....	.25
Jumbo Reeds, each .....	.25
Per octave.....	1.25

In ordering odd Reeds send letter and number as per chart shown on next page.

## OTTO HIGEL COMPANY ORGAN REED CHART

FOR THE USE OF ORGAN MANUFACTURERS

F <sup>26</sup>	F <sup>#27</sup>	G <sup>27</sup>	G <sup>#27</sup>	A <sup>28</sup>	A <sup>#28</sup>	B <sup>28</sup>	C <sup>29</sup>	C <sup>#29</sup>	D <sup>29</sup>	D <sup>#30</sup>	E&F <sup>30</sup>	7th Octave
F <sup>22</sup>	F <sup>#23</sup>	G <sup>23</sup>	G <sup>#23</sup>	A <sup>24</sup>	A <sup>#24</sup>	B <sup>24</sup>	C <sup>25</sup>	C <sup>#25</sup>	D <sup>25</sup>	D <sup>#26</sup>	E <sup>26</sup>	6th Octave
F <sup>18</sup>	F <sup>#19</sup>	G <sup>19</sup>	G <sup>#19</sup>	A <sup>20</sup>	A <sup>#20</sup>	B <sup>20</sup>	C <sup>21</sup>	C <sup>#21</sup>	D <sup>21</sup>	D <sup>#22</sup>	E <sup>22</sup>	5th Octave
F <sup>14</sup>	F <sup>#15</sup>	G <sup>15</sup>	G <sup>#15</sup>	A <sup>16</sup>	A <sup>#16</sup>	B <sup>16</sup>	C <sup>17</sup>	C <sup>#17</sup>	D <sup>17</sup>	D <sup>#18</sup>	E <sup>18</sup>	4th Octave
F <sup>10</sup>	F <sup>#11</sup>	G <sup>11</sup>	G <sup>#11</sup>	A <sup>12</sup>	A <sup>#12</sup>	B <sup>12</sup>	C <sup>13</sup>	C <sup>#13</sup>	D <sup>13</sup>	D <sup>#14</sup>	E <sup>14</sup>	3rd Octave
F <sup>6</sup>	F <sup>#7</sup>	G <sup>7</sup>	G <sup>#7</sup>	A <sup>8</sup>	A <sup>#8</sup>	B <sup>8</sup>	C <sup>9</sup>	C <sup>#9</sup>	D <sup>9</sup>	D <sup>#10</sup>	E <sup>10</sup>	2nd Octave
F <sup>3</sup>	F <sup>#3</sup>	G <sup>3</sup>	G <sup>#3</sup>	A <sup>4</sup>	A <sup>#4</sup>	B <sup>4</sup>	C <sup>5</sup>	C <sup>#5</sup>	D <sup>5</sup>	D <sup>#6</sup>	E <sup>6</sup>	1st Octave
.....	.....	.....	.....	.....	.....	.....	C <sup>2</sup>	C <sup>#2</sup>	D <sup>2</sup>	D <sup>#2</sup>	E <sup>2</sup>	Bourdon

EXAMPLES—An ordinary five-octave diapason runs from F<sup>3</sup> to F<sup>22</sup>; a principal, F<sup>6</sup> to F<sup>26</sup>. In a six-octave, double reed, keyed on C, the diapason runs from C<sup>2</sup> (16ft. C) to C<sup>25</sup>; the principal, C<sup>5</sup> (8ft. C) to C<sup>28</sup>. In a six-octave double reed, keyed on F, the diapason runs from F<sup>3</sup> to F<sup>26</sup>, and the principal from F<sup>6</sup> to F<sup>26</sup>, and from F<sup>#23</sup> to F<sup>26</sup> is repeated for a sixth octave.

**ORGAN REED BOARDS**

Made to Order only.

No. 255

Our standard sizes for Single, Single Celeste, Bourdon Celeste, Plain Doubles, Double Celeste, Triples and Four Setters is  $18\frac{1}{2}$ " by  $38\frac{1}{2}$ ". For all special sizes of Reed Boards a sketch showing position of the different sets of Reeds, distance of pitman hole, etc. must be sent.

Price on application.

**ORGAN OCTAVE COUPLERS**

FIVE OCTAVE.

No. 256

Each.....	\$0.60
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**ORGAN STOP KNOBS**

No. 257

Beveled or straight, without celluloid face plates, per dozen.....	\$0.40
Each.....	.05

**CELLULOID FACE PLATES**

No. 258

Celluloid face plates, per dozen.....	.40
Each.....	.05

We carry the following in stock:—Principals, Melodia, Diapason, Celeste, Flute, Piccolo, Piano, Vox Humana, Aeolian, Dulcet, Dulciana, Tremolo, Bass Coupler, Treble Coupler.

**MADE IN CANADA**



**COUPLER BUTTONS**

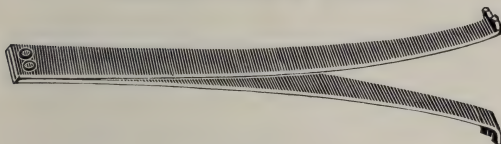
No. 259

Complete with Screws, price per 100.....	\$0.80
Per dozen.....	.15
Without Screws, per 100.....	.65
Per dozen.....	.12

**ORGAN REED HOOKS**

No. 260

Each.....	\$0.05
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**ORGAN BELLOW SPRINGS**

No. 261

11½" Long, 16 Pounds Pressure.

Each.....	\$0.15
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**FEEDER SPRINGS**

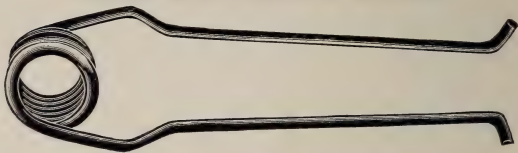
8" Long, 6 Pounds Pressure.

No. 262

Each.....	\$0.07½
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**MADE IN CANADA**

ORGAN WIRE BELLOW SPRINGS



No. 263

Each..... \$0.15

VALVE SPRINGS

BRASS WHITENED

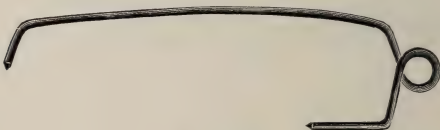


No. 264

Per dozen..... \$0.10  
Each..... .02

VALVE SPRINGS

BRASS WHITENED



No. 265

Per dozen..... \$0.10  
Each..... .02

ORGAN KEY PINS



No. 266  
OVAL.

Per lb. (220 to a lb.)..... \$0.75  
Per dozen..... .10

**ORGAN KEY PINS**

ROUND.



No. 267

Per lb. (268 to a lb.).....	\$0.75
Per dozen.....	.10

**PITMAN ROD**

No. 268

Cedar—Per 1,000 feet.....	\$6.00
Per 100 feet.....	.75
Per 25 feet.....	.25
Pine—Per 1,000 feet.....	\$3.00
Per 100 feet.....	.50
Per 25 feet.....	.20

**ORGAN PEDAL WEBBING**

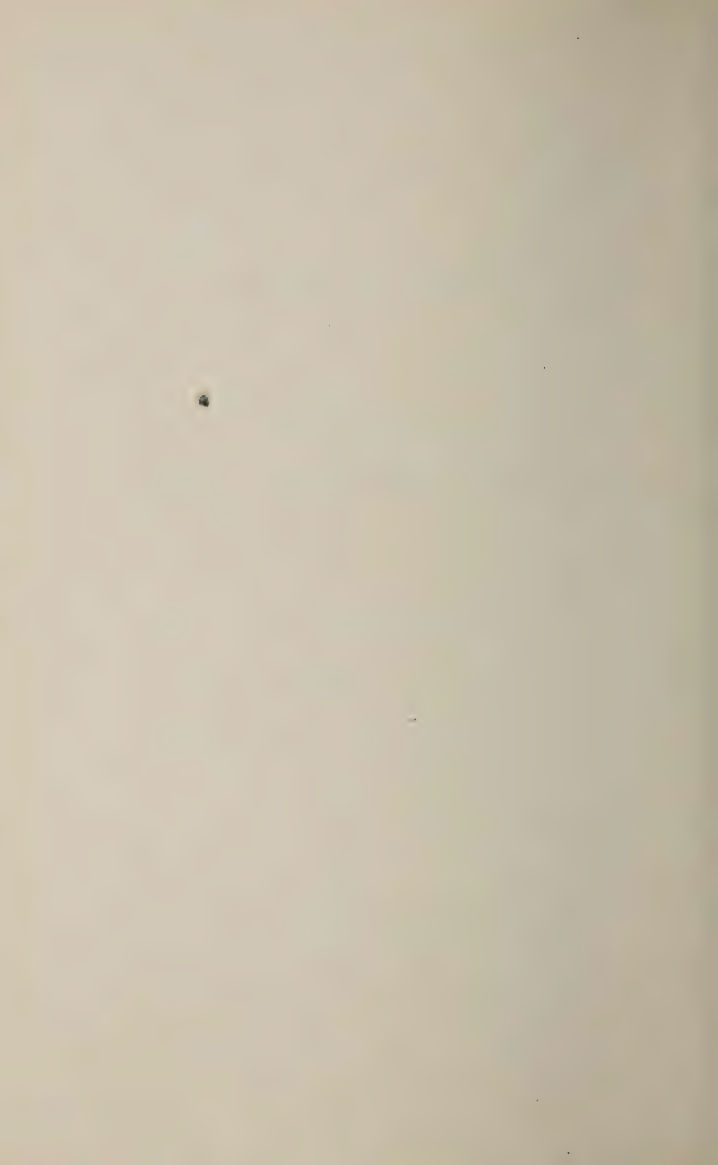
No. 269

In rolls from 50 to 75 yards, per yard.....	\$0.03
Per dozen yards.....	.50
Per one yard.....	.05

**ORGAN RUBBER SHEETING**

No. 270

Per yard.....	.60
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# PIANO TOOLS AND SUPPLIES

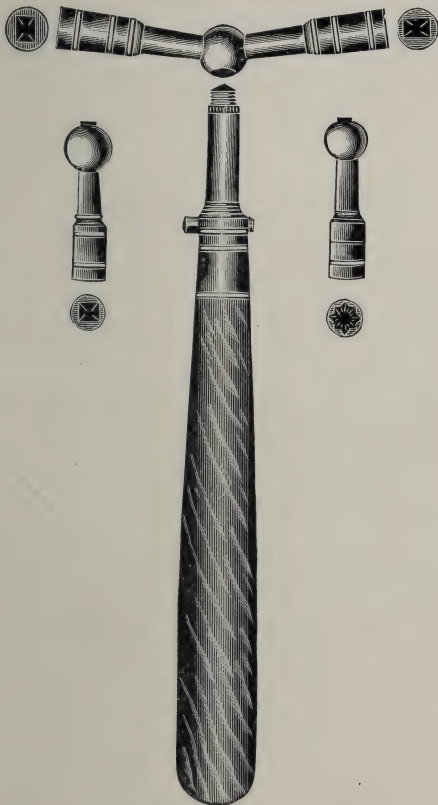


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## TUNING HAMMERS



No 300

No. 1 Quality (Guaranteed).

15" open, 10" closed (Rosewood handle with extension rod), one double oblong head, one single star head, one single square head.....\$16.00

**TUNING HAMMER HEADS**

No. 300

A	First Quality, single star head .....	\$3.60
B	“ Quality, single square head .....	3.00
C	“ Quality, double square head .....	5.00
D	“ Quality, double oblong head .....	5.00
E	“ Quality, extension rod only .....	2.00
F	“ Quality, Rosewood handle only .....	3.00

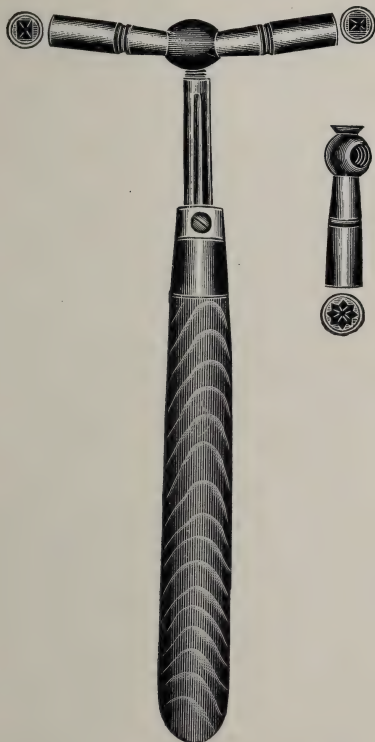
We can also procure to order only, Tuning Hammers with hard rubber handle. Price on application.

All our Tuning Hammer heads are made to fit the standard German tuning pins. Special sizes made to order only. Price on application.

We can also supply the Mueller Tuning Hammer, with Aluminum or Rosewood handle.



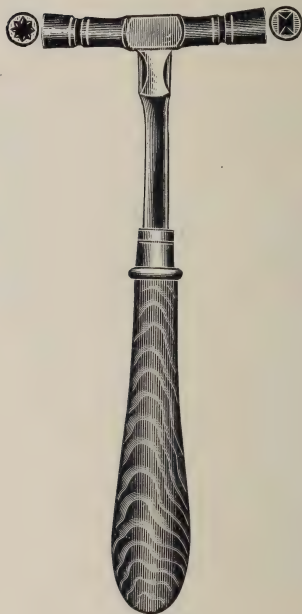
## TUNING HAMMER



No. 301

Rosewood handle, with extension Rod, one double  
oblong and one single star head..... \$6.50

## TUNING HAMMER



No. 302

Rosewood handle, with stationary bar and head, with  
star hole on one and oblong hole on other end. . . \$3.25

## TUNING HAMMER



No. 303

With Walnut Handle and Stationary Bar.

A—With star head.....	\$3.00
B—With square head.....	2.60

We have two sizes in the square head. When ordering send a turning pin or a piece of wood of the size required.

With Rosewood handle, extra..... \$1.0

## TUNING PIN EXTRACTOR TUBES



No. 304

Price..... \$1.75



No. 305

Rosewood handle for same..... 2.65

Stringing Hammer Tubes, with either square or oblong hole..... 2.60

## TUNING OR STRINGING HAMMERS



No. 306

Tuning or Stringing Hammer, with stationary handle  
with either square or oblong hole, oil finished  
First quality..... \$2.00  
Second quality..... .75

## STRINGING CRANK

No. 307



A new tool used for winding coils on the tuning pins,  
has proven to be very successful. . . . . \$2.25

## TUNING PIN DRILLS

No. 308



In sizes from 1-0 to 3-0, each. . . . . \$0.45  
Per dozen. . . . . 5.25

## TUNING PIN BITS

(SPOON SHAPE)



No. 309

For braces with square shank, in sizes from 1-0 to 3-0  
Each. . . . . \$0.60  
Per dozen. . . . . 6.60

Sizes of Spoon Bits.

No. 0 . . . . . 265  
No. 00 . . . . . 271  
No. 000. . . . . 275

No. 310

For chuck with round shank, in sizes from 1-0 to 3-0,  
each . . . . . .50  
Per dozen. . . . . 5.50

**To Secure the Best Results**

Tuning pin holes should be bored with Drill No. 308 first and rebores with Spoon Bit. The Drill must be at least two sizes smaller than the Spoon Bit.

The above is the most approved method, because the holes are not liable to be burned on the second operation, there being very little stock to remove. If a light coat of varnish is applied in the holes and allowed to dry for 24 hours it will be found beneficial, as it prevents the tuning pin from jumping.

**TUNING PIN PUNCH**



No. 311

Price..... \$0.65

**PUNCH FOR BROKEN TUNING PINS**



No. 312

Price..... \$0.65

**PUNCH FOR MARKING TUNING PIN HOLES**

No. 313

Price ..... \$0.65

**COMBINATION HOLDER FOR TUNING PIN AND STRINGING**



No. 314

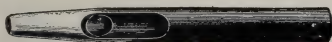
A new tool which has proven very successful..... \$1.30

## PUNCHES



No. 315

For Balance Rail, $\frac{1}{2}$ " diameter.....	\$3.75
For Front Rail, $\frac{3}{4}$ " diameter.....	4.45



No. 316

For Regulating Rail Punchings... $\frac{5}{16}$ ", 45c.	$\frac{3}{8}$ ", 85c.
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## STRING LIFTERS



No. 317

Price.....	\$0.45
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No. 318

Price.....	.40
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### TUNING FORKS

CONCERT OR HIGH PITCH



No. 319

1—Steel, in key of A or C.....	\$0.25
2—Blued steel, in key of A or C.....	.40
3—Blued steel, Philharmonic, in key of A or C.....	.45
4—Blued steel, International or low pitch, made by Valentine & Carr, adopted by the Piano Manu- facturers' Association as the standard interna- tional Pitch, stamped on each Fork, A or C....	.60

### TUNING WEDGES



No. 320

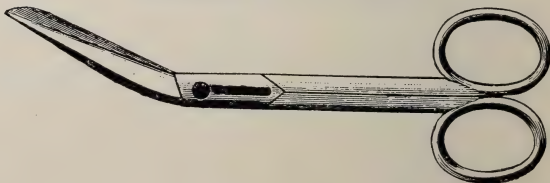
A—Rubber, 3" long, 1" wide.....	\$0.12
B—Rubber, 3" long, 1" wide, with wire handle .....	.17



No. 321

For Uprights.....	\$0.35
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### DAMPER FELT SCISSORS



No. 322

Price.....	\$0.95
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FELT PICKERS



Price..... \$1.35



No. 324

Price..... \$1.80



No. 325

Price..... \$1.45

FELT PICKERS

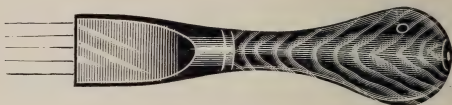


Price..... \$1.75

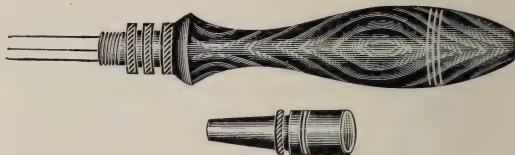


Price..... \$0.55

No. 328



Price..... \$1.50

No.  
329

Price..... \$1.35

This Felt Picker is for pocket use, the little cap screws on the end.

We can make any other style of Felt Picker desired on short notice. Prices on application.

### WIRE GAUGES

FOR MUSIC WIRE.

No. 330



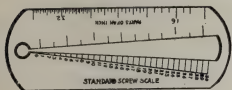
Price..... \$2.10

No. 331

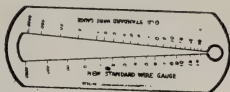


Price..... \$2.10.

### POCKET SCREW AND WIRE GAUGE



No. 332



Front View.

Back View.

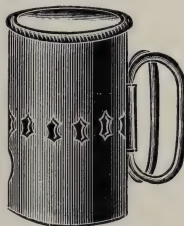
Price..... \$3.00

We can also supply Twist Drill and Stubs Steel Wire Gauges.

### TUNERS' POCKET GLUE POTS

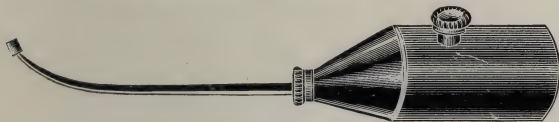


No. 334



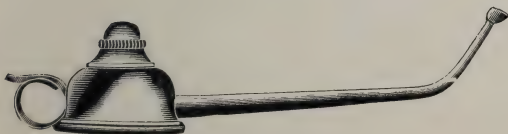
Price..... \$1.10

### HAMMER SHANK BURNING LAMPS



No. 335

Price..... \$1.20



No. 336

Price..... \$1.10

VEST POCKET HAMMER SHANK  
BURNING LAMPS

No. 337



Price..... \$0.50



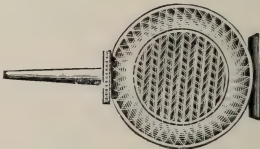
No. 338

Price..... \$0.40

LIQUID GLUE HOLDER



No. 339



Price..... \$0.40

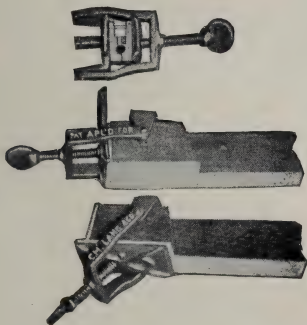
PIANO GLUE POTS

No. 340

Tin with Copper Boilers complete including lamp.... \$1.90

## IVORY GLUING CLAMPS

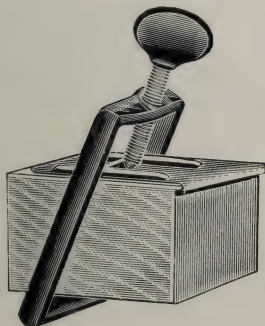
No. 341



Each.....	\$0.40
Per dozen.....	4.25

## IVORY GLUING CLAMPS

No. 342

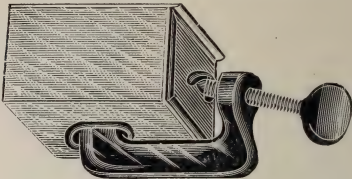


For Tops.

Each.....	\$0.30
Per dozen.....	3.00

IVORY GLUING CLAMPS

No. 343



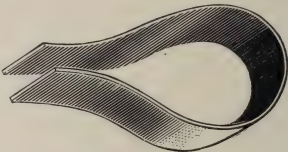
For Fronts.

Each.....	\$0.25
Per dozen.....	2.75

STEEL SPRINGS

FOR HOLDING IVORY OR CELLULOID WHILE BEING GLUED

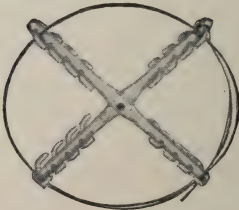
No. 344



Each.....	\$0.10
Per dozen.....	1.00

MUSIC WIRE REEL

No. 345



Price.....	\$1.10
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## REED FILES



No. 346

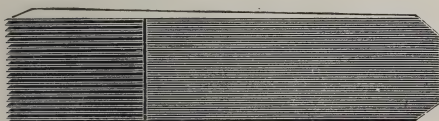
WITH SAFE EDGES

00, 0, 1, per dozen..... \$1.80

Each..... :20

We can also supply taper saw file of any make or length at lowest prices.

## TOOTHING IRONS



No. 347

Each..... \$0.35

In ordering state if fine, medium or coarse teeth are wanted.

## IVORY FLOAT FILES



No. 348

Each..... \$0.25

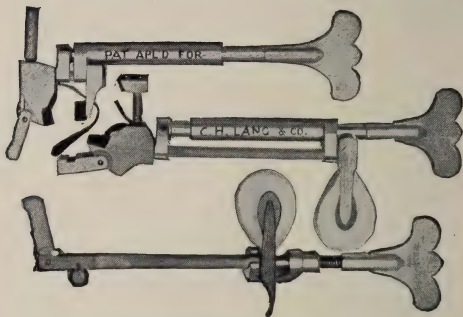
## WOOD AND IVORY SCRAPERS



No. 349

Each..... \$0.15

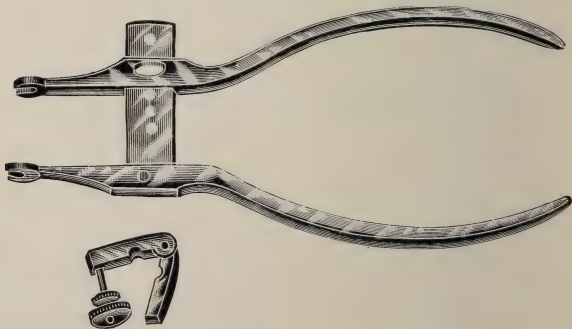
HAMMER SHANK EXTRACTORS



No. 350

Per set..... \$3.75

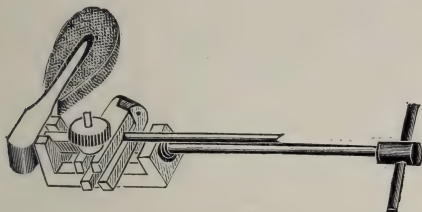
HAMMER SHANK EXTRACTORS



No. 351

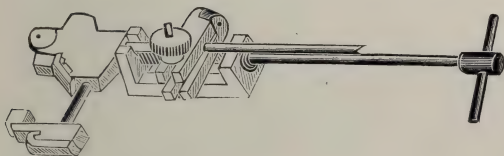
Price..... \$3.25





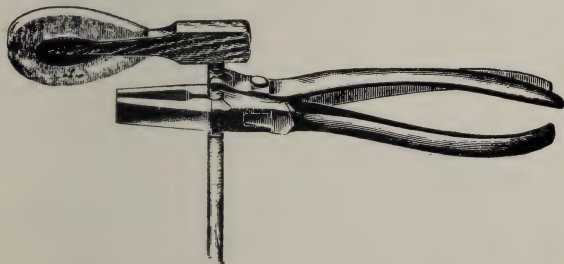
No. 352

Price..... \$1.90



Price..... \$1.90

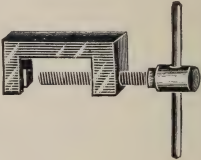
## HAMMER SHANK EXTRACTOR



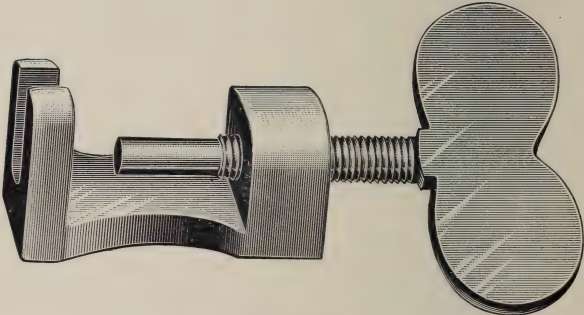
No. 353

Price..... \$1.75

No. 354



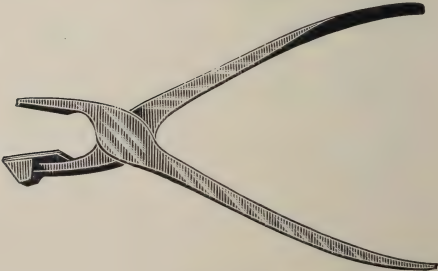
Price..... \$0.70



No. 355

Price..... \$0.75

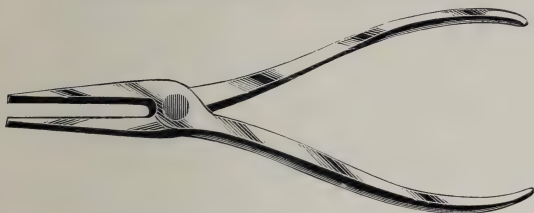
KEY PLIERS



No. 356

Price..... \$1.35

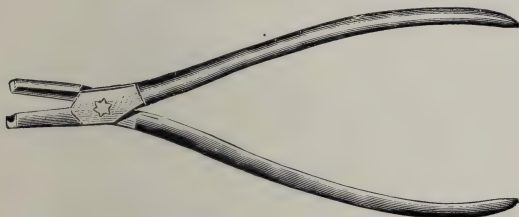
PARALLEL REGULATING PLIERS



No. 357

Price..... \$1.50

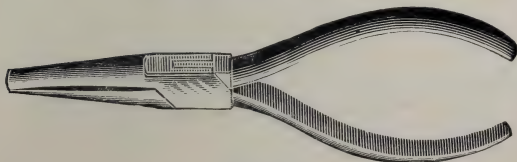
REGULATING PLIERS



No. 358

Price..... \$2.20

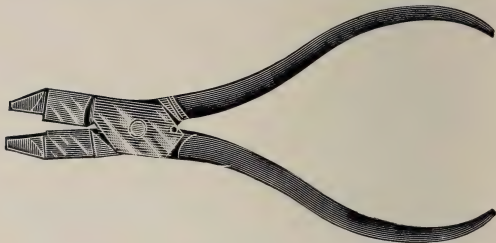
DUCKBILL PLIERS



No. 359

Price..... \$1.00

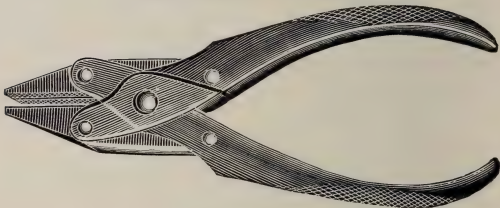
COMBINATION PLIERS AND CUTTERS



No. 360

Price.....\$ 1.10

FLAT NOSE PLIERS



No. 361

5" Long.

Price.....\$0.85

DOWELL WIRE BENDING PLIERS

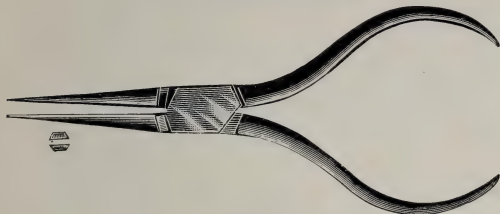


No. 362

9" Long.

Price.....\$3.00

## LONG NOSE PLIERS



No. 363  
6" Long.

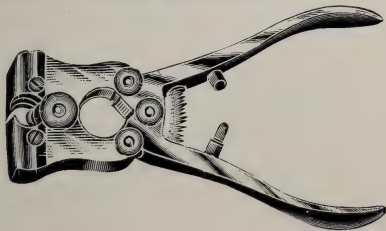
Price..... \$0.75

## EXPANDING PLIERS



No. 364  
Price..... \$1.10

## MUSIC WIRE CUTTING NIPPERS



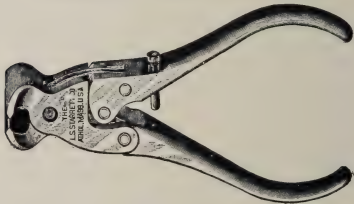
No. 365  
Price..... \$2.25  
For extra jaws, per pair..... .60



No. 366

Price..... \$1.75

DAMPER WIRE NIPPERS

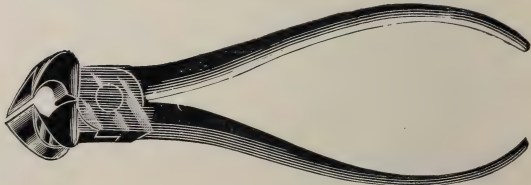


No. 367

Price..... \$2.00  
Extra jaws, per pair ..... 1.40  
Each..... .75

END CUTTING NIPPERS

Not for Music Wire.

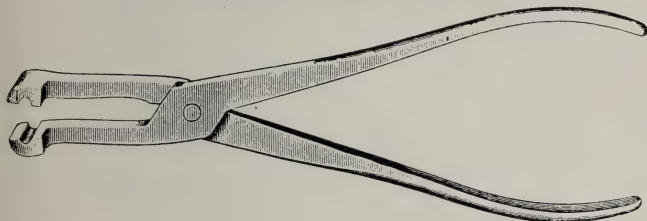


No. 368

5" Long.

Price..... \$0.75

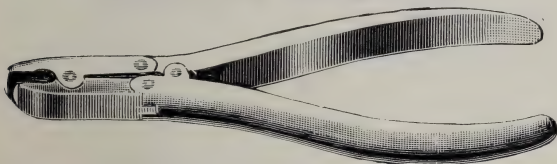
## HAMMER SHANK TONGS



No. 369

Price..... \$1.75

## SPECIAL BACK CHECK PLIERS



No. 370

Price..... \$6.50

Made to Order only.

## TWEEZERS



No. 371

6" long, per pair..... \$0.55

7" long, per pair..... .60

**FELT KNIVES**

No. 372

With 3½" blade.....	\$0.40
With 6" blade.....	.75
With 7" blade.....	.85
Blades only, 3½".....	.30
Blades only, 6".....	.65
Blades only, 7".....	.75

**RUBY SANDPAPER FILE**

No. 373

Price.....	\$0.15
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**PIANO DRILL STOCKS**

No. 374

Rosewood handle, Ivory pulley with 6 brass pads.	
Pads hold bits for Nos. 4, 5, 6, 7, 8, 9 bridge pins...	\$12.50

**DRILL BOWS**

No. 375

Best quality, 2¾ feet long, without string.....	\$1.45
-------------------------------------------------	--------



**BRASS PADS**

FOR DRILL STOCKS

No. 376

A—To hold drills from Nos. 6 to 52, each.....	\$0.50
B—For drills $\frac{7}{32}$ , $\frac{1}{4}$ , $\frac{9}{32}$ , each .....	.70
C—With counter sink.....	2.00

**SCREW DRIVER HANDLES**

OCTAGON. ROSEWOOD.

No. 377



5", each .....	\$0.18
5½", each .....	.20

**ROUND HANDLES**

No. 378



$\frac{5}{8}$ " diameter, each.....	\$0.05
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**FLAT HANDLES**

No. 379

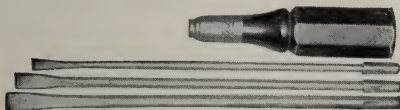


Price.....	\$ .10
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**SCREW DRIVER**

WITH HARD RUBBER HANDLE.

No. 380



A—Three sizes of blades as follows: $\frac{3}{16}$ " x 8", $\frac{1}{4}$ x 8 $\frac{3}{8}$ , $\frac{5}{16}$ " x 8 $\frac{5}{8}$ " .....	\$3.35
B—Handle only.....	2.00

SCREW DRIVER BLADES

TO FIT ORDINARY HANDLES

No. 381 A

A— $\frac{3}{16}$ " x 8".....	\$0.35
B— $\frac{1}{4}$ " x $8\frac{3}{8}$ ".....	.45
C— $\frac{5}{16}$ " x $8\frac{5}{8}$ ".....	.60

SCREW HOLDER



No. 381 B

Price.....	\$1.30
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SCREW DRIVER

WITH ROSEWOOD HANDLE.



No. 382

5" handle, $\frac{1}{4}$ " blade.....	\$0.55
5 $\frac{1}{2}$ " handle.....	.60

SCREW, DRIVER WITH SCREW HOLDER



No. 383

Screw Driver with holder complete.....	\$1.00
Screw holder.....	.50

REPETITION LEVER HOOK



No. 384

For adjusting Action Springs.....	\$0.25
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YANKEE SPIRAL RATCHET SCREW DRIVER



No. 385

Including three bits . . . . . \$1.75

No. 386



REED  
SCRAPER

Price \$0.40

No. 387



BUSHING  
REAMER

Price \$0.25

**OCTAGON REAMERS**

No. 388

Price..... \$0.75

**KEY SPACER**

No. 389

7" Long.

Price..... \$0.60

**DAMPER SPRING REGULATOR**

No. 390

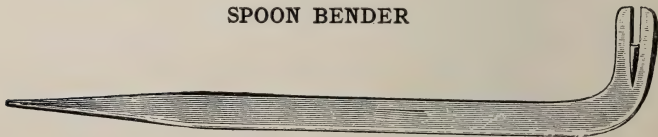
Price..... \$0.70

**BACK CHECK SPACER**

No. 391

Bent.

Price..... \$0.35

**SPOON BENDER**

No. 392

Price ..... \$0.60

## REGULATING SCREW DRIVER



No. 393

Price..... \$0.55

## ACTION REGULATORS



No. 394

Price..... \$0.60

## ACTION REGULATING IRONS



No. 395

Price..... \$0.60

No. 396  
Straight.

Price..... \$0.60

## ACTION BOLT WRENCHES



No. 397

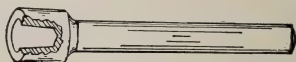
Price..... \$1.15



No. 398

Price..... \$1.20

## CAPSTAN SCREW DRIVERS



No. 399

Price..... \$0.55



No. 400

Price..... \$0.70

We also make an automatic Capstan Screw Driver.. \$2.40

## KEY REAMER



No. 401

Price..... \$0.45



No. 402

Price..... \$0.45



No. 403

Price..... \$0.75

## DOUBLE HEADED SCREW DRIVER



No. 404

Price..... \$1.10

PUNCHING IRONS



No. 405

For driving out centre pins..... \$0.35

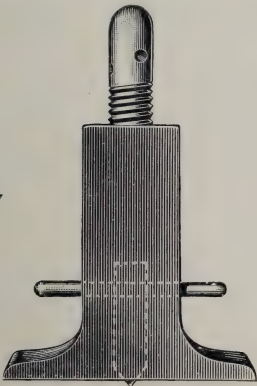
BLOCK PLANES



No. 406

Price..... \$0.25

ACTION SETTING BLOCKS



No. 407

Per pair..... \$2.00  
Extra bolts of different lengths, per pair..... .40

SNAIL COUNTER SINK BITS



No. 408  
For Wood.

For $\frac{1}{2}$ "	.....	\$0.15
For $\frac{5}{8}$ "	.....	.20
For $\frac{3}{4}$ "	.....	.25

ROSE COUNTER SINKS

For Iron

For $\frac{1}{2}$ "	.....	.30
For $\frac{5}{8}$ "	.....	.40
For $\frac{3}{4}$ "	.....	.50

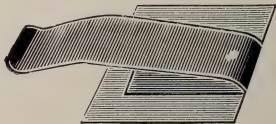
KEY BUSHING PLUGS



No. 409

In iron, each	.....	\$0.25
Per dozen	.....	2.50
In wood, each	.....	.05
Per dozen	.....	.50

KEY PLIER JAW



No. 410

Can be used with an ordinary plier	.....	\$0.40
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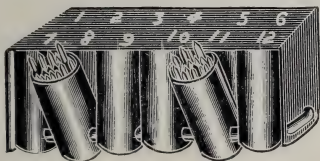


## FLANGE PIN HOLDER



No. 411

Holding six sizes, filled with G.S. Centre Pins, three  
dozen of each size..... \$2.30



No. 412

Aluminum case with cover, holding 12 sizes, filled with  
G. S. Centre Pins, three dozen of each size.... \$1.85



No. 413

Six cardboard boxes filled with G. S. Centre Pins, three  
dozen of each size..... \$0.90

No. 414

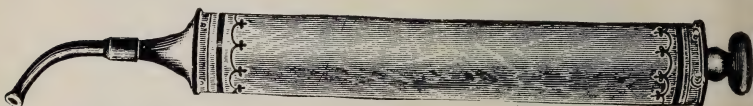
Twelve envelopes, each containing three dozen G. S.  
Centre Pins, different sizes..... \$0.60

## PIANO BELLOWS



No. 415

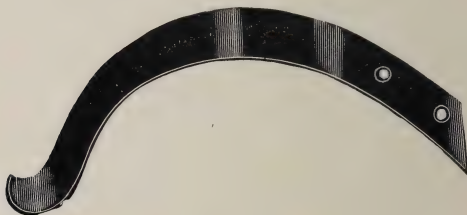
14" cylinder..... \$1.75



No. 416

18" cylinder, with detachable nose..... \$3.25

## TRAP SPRINGS



No. 417

4", per dozen.....	\$0.20
Each.....	.05
5", per dozen.....	.30
Each.....	.07

## COIL TRAP SPRINGS

No. 418

2½" long, 1½" wide, per dozen.....	\$0.50
Each.....	.10

## TUNING PINS

BLUED.



No. 419

Per Package of 250.

0	—2¼" long.....	\$1.00
00	—2¼" long.....	1.00
00	—2½" long.....	1.05
000	—2½" long.....	1.25
0000	—2½" long.....	1.50
Nickel plated tuning pins, per package.....		Extra 1.50

## GLASS PIANO INSULATORS



No. 420

Per set of four.....	\$0.75
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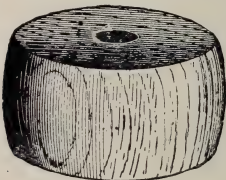
SOUNDING BOARD BUTTONS



No. 421

Price per dozen..... \$0.05

ORGAN CASTERS



No. 422

Wooden, per dozen ..... \$0.20

BUTT HINGES



No. 423

Nickel plated, per pair ..... \$0.10

## DESK KNOBS

No. 424



WITH RUBBER BUTTON

A

Per dozen..\$0.30



B

\$0.15



C

\$0.15

## RUBBER HEAD NAILS

No. 425



Small.

1

Per dozen.. \$0.08

Per gross... .50



Medium.

2

.10

.65



Large.

3

.12

.75

## RUBBER BUTTONS

No. 426



1

Per dozen.. \$0.10

Per gross... .65



2

.10

.65

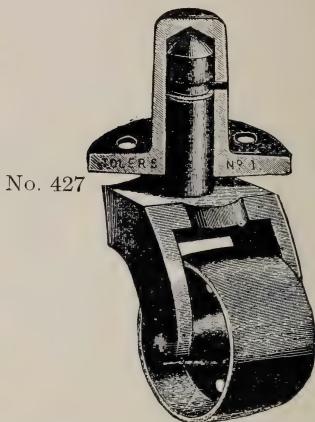


3

.12

.75

## PIANO CASTERS



Per set of four..... \$0.40

## PEDAL PROPS



No. 428

With one brass nut, 4", 4½", 5", per dozen..... \$.20  
 Each..... .02

## EYE SCREWS



With ¾" hole, per dozen..... \$.....  
 Each..... .02

## DESK OR TRAP PINS



No. 430

Large, per dozen.....	\$0.09
Medium, per dozen.....	.07
Small, per dozen.....	.05

## PUNCHING HOLDER



No. 431

Will hold about  $\frac{1}{4}$  gross of front rail punchings and  
about  $\frac{1}{2}$  gross balance rail punchings..... \$0.15

A very handy device for holding cloth or cardboard;  
balance and front rail punchings.

## PIANO LOCK KEYS

No. 432

A—Square, per dozen.....	\$0.20
Each.....	.03
B—Triangular, per dozen.....	.20
Each.....	.03



**PATENT ADJUSTABLE  
TOOL HOLDER**

No. 433

Complete with ten useful  
tools, shown on next  
page, including a seven-  
inch saw..... \$1.75

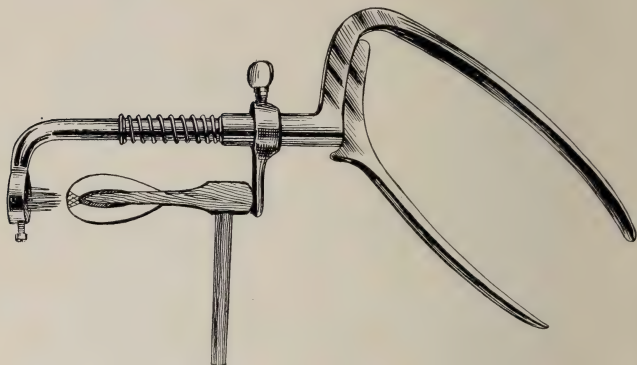




No. 434



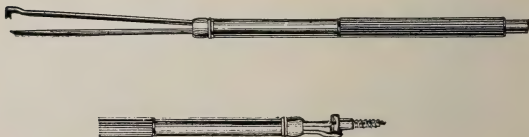
Ten useful tools, each..... \$0.10

**tone REGULATING TOOL**

No. 435

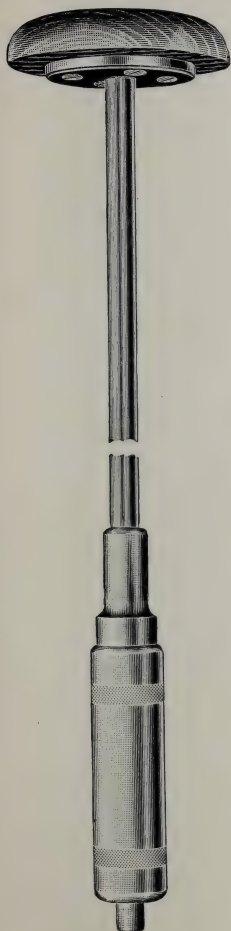
Price \$4.75

With this tool one can regulate a set of hammers in the most scientific manner with the greatest ease and rapidity, preserving the walls of the hammer and picking the portion as shown in the cut, which rounds the tone and removes the metallic and rasping harmonies which are so prevalent in pianos.

**SCREW DRIVER AND HOLDER**

No. 436

Price \$1.10



KING'S AUTOMATIC  
PIANO TUNING PIN AND STRING  
POLISHER

Price - \$5.00

No. 437



It will be interesting to know how many pieces a modern upright action contains. The cut on the opposite page represents all the action parts, being 7,390 pieces. The following is a list.

- |                                    |                                  |
|------------------------------------|----------------------------------|
| 1 Action Rail.                     | 68 pieces of Felt for Sustaining |
| 1 Bottom Rail.                     | Knuckles.                        |
| 1 Hammer Rail.                     | 68 Flanges for Sustaining        |
| 1 Spring Rail.                     | Knuckles.                        |
| 1 Regulating Rail.                 | 68 Springs for Sustaining        |
| 3 Stop Rail pieces.                | Knuckles.                        |
| 1 Bass Damper Rod.                 | 68 pieces of Bushing for Sus-    |
| 1 Treble Damper Rod.               | taining Knuckles.                |
| 6 Damper Rod Hooks.                | 136 pieces of Bushing for Sus-   |
| 6 Damper Rod Nuts.                 | taining Flanges.                 |
| 6 Damper Nut Screws.               | 1 Sustaining Rail.               |
| 9 Regulating Rail Props.           | 3 Sustaining Rail Hooks.         |
| 9 Regulating Rail Prop Screws      | 1 Sustaining Rail Spring.        |
| 1 Hammer Rail Shell.               | 3 Sustaining Rail Flanges.       |
| 20 Hammer Rail Shell Screws.       | 3 Sustaining Rail Flange Cush-   |
| 4 Hammer Rail Hooks.               | ings.                            |
| 1 Hammer Rail Hook Screw           | 3 Sustaining Rail Flange         |
| 1 Hammer Rail Lifter.              | Bushings.                        |
| 2 Hammer Rail Lifter Screws.       | 3 Sustaining Rail Flange         |
| 88 Butt Flange Screws.             | Screws.                          |
| 88 Wipp Flange Screws.             | 1 Sustaining Rail Lifter.        |
| 88 Tongue Flange Screws.           | 2 Sustaining Rail Lifter Screws  |
| 88 Butt Plate Screws.              | 88 Jack Springs.                 |
| 88 Butt Plates.                    | 88 Rail Springs.                 |
| 3 Brass Flange Sections.           | 68 Damper Springs.               |
| 68 Lever Screws.                   | 1 Damper Rod Leaf Spring.        |
| 88 Regulating Screws.              | 1 Damper Rod Leaf Spring         |
| 88 Capstan Screws.                 | Screw.                           |
| 68 Damper Wires.                   | 1 Punch under Damper Rod         |
| 68 Damper Block Sockets.           | Leaf Spring Screw.               |
| 68 Damper Block Socket Screws      | 1 piece of cloth under Damper    |
| 88 Back Check Wires.               | Rod Leaf Spring Screw.           |
| 88 Bridle Wires.                   | 6 pieces of felt under Damper    |
| 68 Spoons.                         | Rod.                             |
| 88 Butt Centre Pins.               | 4 Action Brackets.               |
| 88 Wipp Centre Pins.               | 24 Bracket Screws.               |
| 88 Fly Centre Pins.                | 4 pieces of Bushing in Brackets  |
| 88 Tongue Centre Pins.             | 4 Spring Rail Screws.            |
| 88 Abstract in Wipp Centre Pins    | 88 Reg. Rail Punchings.          |
| 88 Tongue in Abstract Centre       | 88 Butt Punchings.               |
| Pins.                              | 68 Damper Lever Punchings.       |
| 88 Lost Motion Tongue Centre       | 28 Bass Damper Plates.           |
| Pins.                              | 28 Bass Damper Blocks.           |
| 68 Damper Flange Centre Pins.      | 28 Bass Damper Wedge Veneer      |
| 68 pieces of cord in Damper        | pieces.                          |
| Flange.                            | 28 Bass Damper Back Strips.      |
| 68 Sustaining Wires in Levers.     | 56 Bass Damper white Felt        |
| 68 pieces of Bushing on Sustaining | pieces.                          |
| Wire.                              | 56 Bass Damper scarlet Felt      |
| 68 pieces of Bushing on Lifter     | pieces.                          |
| Screws.                            | 40 Treble Damper Heads.          |
| 68 Sustaining Knuckles.            | 40 Treble Damper Blocks          |

40	Treble Damper white Felt.	88	pieces Bushing in Abstracts.
40	Treble Damper scarlet Felt.	88	Tongues.
88	Bridle Leather Tips.	88	pieces of Bushing in Tongues.
88	Bridle Straps.	88	Tongue Flanges.
88	Back Checks.	176	pieces Tongue Flange Bushing.
88	Back Check Felt Pieces.	88	Lost Motion Tongues.
9	Stop Rail Screws.	88	Lost Motion Cushings under Wipp.
3	pieces Stop Rail Felt.	88	pieces cloth on Lost Motion Tongues.
88	Butts.	88	pieces Bushing Cloth in Lost Motion Tongues.
88	pieces Butt Leather.	176	pieces Bushing in Lost Motion Wipps.
88	pieces under Butt Cloth, scarlet.	1	piece of Hammer Rail Cloth.
88	pieces under Butt Cloth, white.	1	piece of Spring Rail Felt.
88	pieces Butt Felt.	88	scarlet Punchings under Jack Springs.
176	pieces Butt Bushing.	88	Regulating Buttons.
88	Butt Shanks.	9	pieces for Lost Motion attachment.
88	Butt Dowells.	1	Lost Motion Rod.
88	Catches.	4	Lost Motion Hooks.
88	pieces Catch Leather.	4	pieces of Hammer Rail Cushings.
68	Damper Levers.	88	Flys.
68	Damper Lever Flanges.	88	Fly Flanges.
68	pieces Damper Lever Cloth.	176	Fly Flange Bushings.
136	pieces Damper Lever Flange Bushing.	4	Punchings in Shell of Hammer Rail.
88	Wipps.		
88	Wipp Flanges.		
178	pieces Wipp Flange Bushing		
88	Abstracts.		
88	pieces cloth under Abstracts.		

Total—7390

# MEMORANDA



## MEMORANDA



# MEMORANDA

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